

textile bulletin

Abstracts of the eight papers entered in the annual A. A. T. C. C. intersectional contest are published in this issue. Turn to Page 42.

The HEART of the Cotton Belt is the Hub of LINTER SERVICE by RAYCO



Our expanded Cotton Linter Division now has its headquarters at Memphis, Tennessee. This central location places our licensed fiber specialists in constant close contact with the mills at the source of procurement. We also maintain offices at other key cotton centers—Dallas, Atlanta and Charlotte.

The RAILWAY SUPPLY & MFG. CO. and Affiliates
Specialists in Grading, Marketing and Processing Cotton and Synthetic Fibers
General Offices: CINCINNATI, OHIO

Plants and Sales Offices:

Cincinnati, Ohio
Charlotte, N. C.
Memphis, Tenn.

Franklin, Ohio
Covington, Tenn.
New York, N. Y.
Detroit, Mich.

Atlanta, Ga.
Greensboro, N. C.
Chicago, Ill.



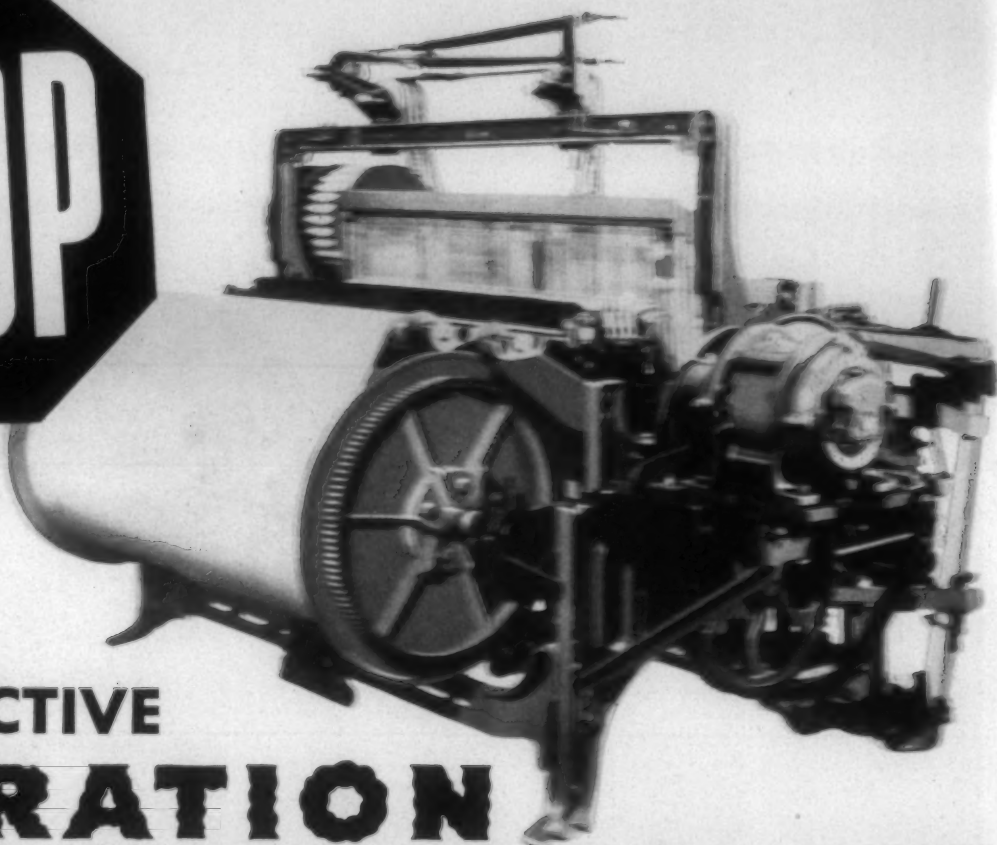
RAYCO



ADVERTISING
INDEX—PAGE 69



DESTRUCTIVE VIBRATION



Steady loom cranks with two extra bearings. Eliminate the "Whip" or picking motion with two more camshaft bearings. Add adjustable stop-motion supports that stay tight. Tie crankshaft and camshaft together to stop improper meshing of gears. Brace loom sides with a rigid assembly.

You can accomplish all this with installation of patented Hunt Spreaders on your present looms.

Our factory-trained selectors can install Hunt Spreaders on your looms—whether fifty or five hundred—with a minimum of interruption. It's easier than you think. Write or wire today for information.

*Would you like a copy of our latest catalog?
It is yours for the asking.*

SPREADERS

HIGHER LOOM SPEEDS

MORE PICKS-PER-MINUTE

FINER CLOTH

GREATER PRODUCTION

HIGHER PROFITS

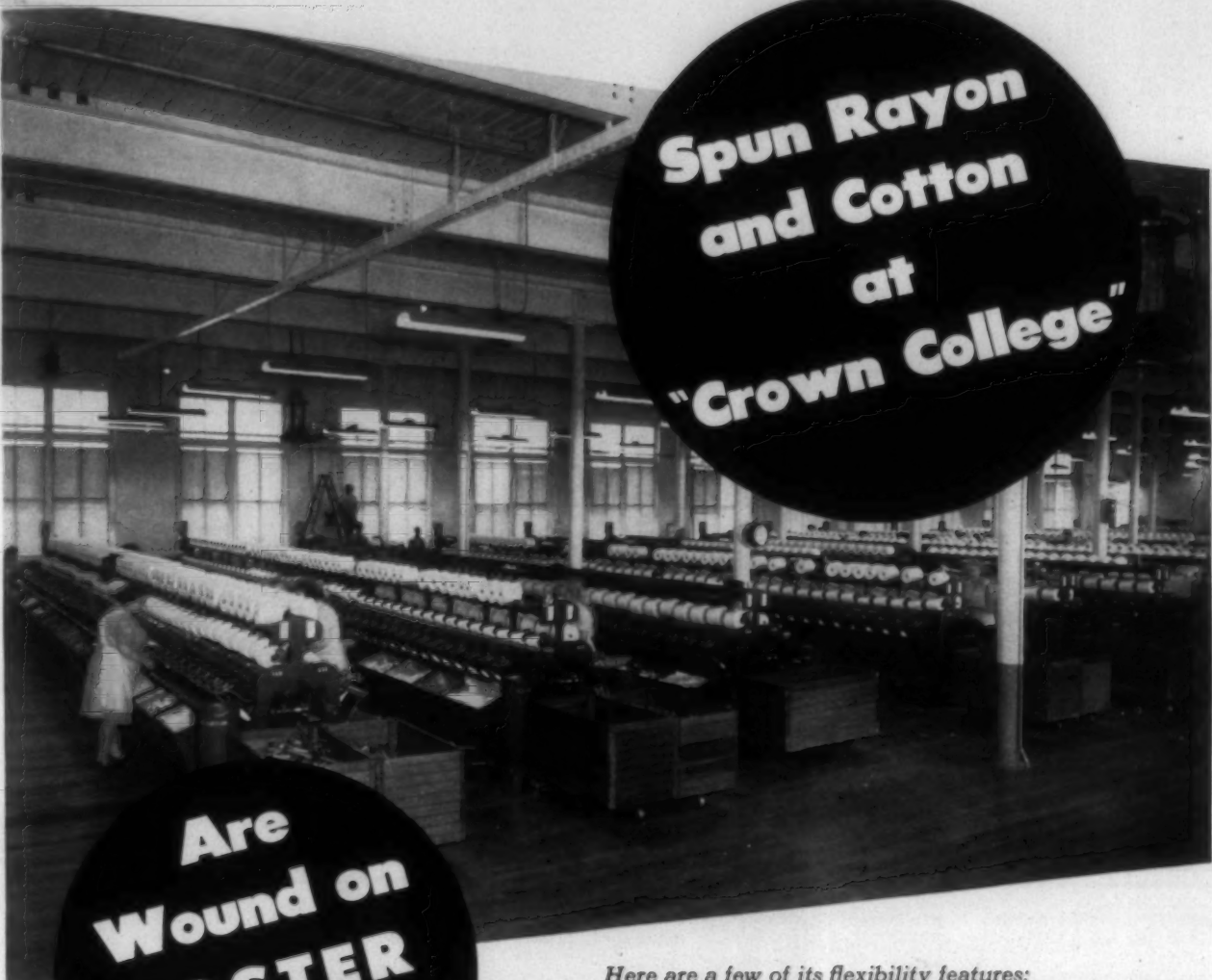
Companion products to Hunt Spreaders which also carry the Hunt name include Motor Drives, Flywheel Drives, Centrifugal and Gear Pumps, Size Kettles and Hydraulic Presses.

HUNT MACHINE WORKS, INC.

SUCCESSORS TO

MOUNTAIN CITY FOUNDRY AND MACHINE CO. AND HUNT LOOM CO.
200 ACADEMY STREET TELEPHONE 200 GREENVILLE, SOUTH CAROLINA

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription \$1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.



**Spun Rayon
and Cotton
at
"Crown College"**

**Are
Wound on
FOSTER
Model 102**

When the Crown Manufacturing Company of Pawtucket, R. I., ("Crown College"), decided to standardize on Foster winding and doubling equipment, it was because Foster superiority had been demonstrated in a series of thoroughgoing tests. Crown wanted the increased production, decreased operating and maintenance costs, and high quality inspected yarn that Foster 102 provides.

This company handles from 8/1 to 60/2 in spun rayon, fine cotton and blends for gabardines, tropicals and cavalry twills. 8 1/4" diameter supply cones weighing 4 1/4 lbs. are wound and inspected on Foster Model 102's. Crown, like many other mills where quality comes first, insists on Foster 102, the flexible winder.

Here are a few of its flexibility features:

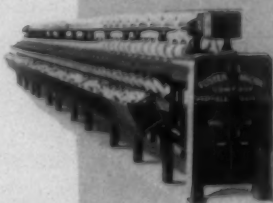
- (1) Winds any type or count staple yarn. The same traverse mechanism which handles cotton yarn will handle worsted yarn without excessive wear.
- (2) Produces any cone taper commonly used and any angle of wind from 9° to 18°.
- (3) Can be equipped to wind knitting cones, warping cones, parallel tubes, dye packages or short traverse cheeses. Winds cones on one side of machine and tubes on the other, if desired.
- (4) Winds dyed yarn even when damp; also conditioned yarn.
- (5) Can be built to wind up to 7" traverse.

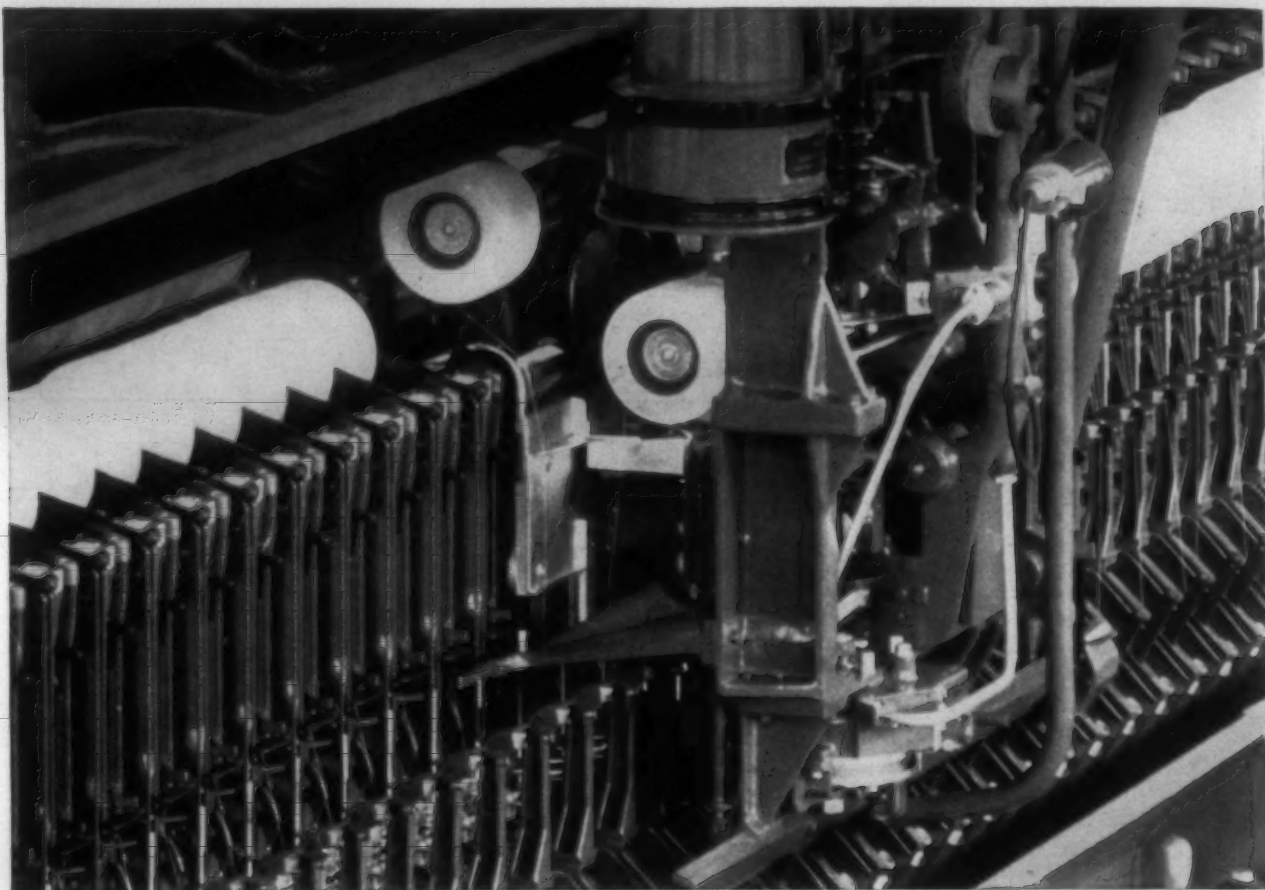
SEND FOR BULLETIN A-91

FOSTER MACHINE CO.

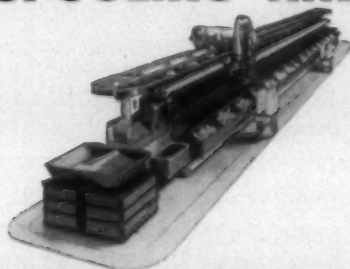
WESTFIELD, MASS.

SOUTHERN OFFICES: JOHNSTON BLDG.,
CHARLOTTE, N. C.; CANADIAN REPRESENTATIVE: ROSS, WHITEHEAD & CO., LTD., UNIVERSITY TOWER BLDG., 660 STE. CATHERINE ST. W., MONTREAL, QUEBEC.

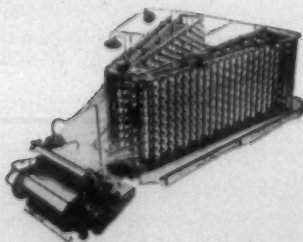




EVEN WHEN RUN ONLY PART TIME, BARBER-COLMAN SPOOLING AND WARPING IS A GOOD INVESTMENT



AUTOMATIC SPOOLER



SUPER-SPEED WARPERS

While the Barber-Colman System of Spooling and Warping has been generally accepted as "standard" in American cotton mills, many mill men have thought that it could perform to advantage only in the larger mills. This is not the case. The economies which can be achieved with Barber-Colman equipment are so substantial that the machines can be a good investment for many of the smaller mills *even though the number of looms to be served is such that the equipment is not run to full capacity.* This has been proved in a number of instances. The purchase of each of these machines was preceded by a careful survey of the individual mill conditions which proved that the investment would be a paying proposition. Before you discard the idea of using Barber-Colman Spooling and Warping as "only for the big mills", ask for a survey — there is a good chance that it may show how you, too, can reduce costs and improve your product. Ask your Barber-Colman representative for detailed information.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

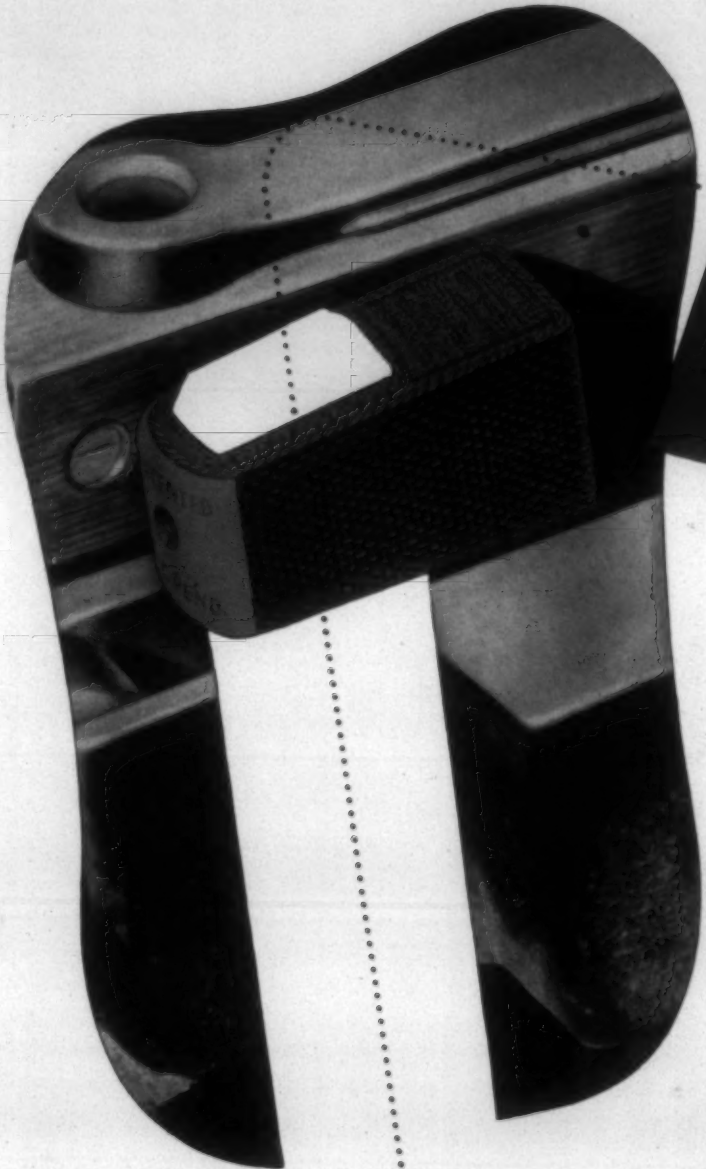
BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A.

GREENVILLE, S. C., U. S. A.

MANCHESTER, ENGLAND



No equal for
"staying put"
 on the picker stick

Dayton De Luxe Loop Pickers are virtually "built around a hole" designed to meet all characteristics of the picker stick. Practical design includes a slightly flared bottom so that when the picker is started onto the stick the taper prevents tearing of the loop ply and facilitates centering. When the Dayton picker is driven onto the stick, there is nothing to break . . . nothing to expand. Dayton design, plus specially-patented symmetrical loop construction, anchors it into position and holds it in place indefinitely.

Too, the specially-designed picker stick hole includes "forward tilt". Another Dayton feature which insures correct shuttle contact. For the complete story write:

TEXTILE PRODUCTS DIVISION
 DAYTON RUBBER

Main Sales Office: Woodside Building,
 Greenville, S. C.
 Factory: Waynesville, N. C.

★
 ADDITIONAL REASONS WHY YOU SHOULD SPECIFY DAYTON LOOP PICKERS

Loom can be boxed the same at all times.

Keep their shape.

Easy to install—fit the stick.

Made of especially woven fabric.

Roughness reduced to absolute minimum.

Lerked-in fillings are reduced to a minimum.

Cuts picker costs as much as 50%.

Only picker built to stand pounding of high-speed loom.

"Stay put" on stick.

All pickers uniform in size.

Dayton Rubber

Clothe your cards with a **TUFFER TENSION REGULATOR** *and Tuffer Motor Drive*

Using the Tuffer Tension Regulator and Tuffer Motor Drive, one man and a helper can clothe the most difficult roll in an exceedingly short time!

Whether used on cylinders or doffers, the Tuffer

Tension Regulator puts on card clothing with smooth, even tension. You'll do it faster and better with the Tuffer Tension Regulator and Tuffer Motor Drive!



Tuffer Tension Regulator

A rugged, lightweight device for regulating tension when clothing cards. Sturdy steel construction—no complicated parts—weighs only 62 lbs. Frictionless, sealed roller bearings.

Tuffer Motor Drive

A small electric motor sends its power through gear reduction to the shaft of a cylinder or doffer. Simple sleeve-bushings make it custom fitted to the cards. Plugs in like a vacuum cleaner—takes but little more power.

Why do it the hard, costly way when you can use a Tuffer Tension Regulator? For complete information... ask our representative or write to any Howard plant or branch office.

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas

Direct Representation in Canada

A-4



IMPROVES PRODUCTION ALL ALONG THE LINE

OR
ve

with
better
Tuffer

device
nothing
ion —
s only
roller

ve

nds its
on to
doffer.
it cus-
ugs in
es but

way
ension
infor-
ive or
nt or

SETTS

A-4

E

LETIN

Need Help?

DRAPER SERVICE

That knotty problem you have sweated and toiled and steamed over . . . that hard-to-find trouble which is making your production records take a nose dive . . . that defect which is piling up "seconds" and brings the Management down on your ears . . . that's the time you need help.

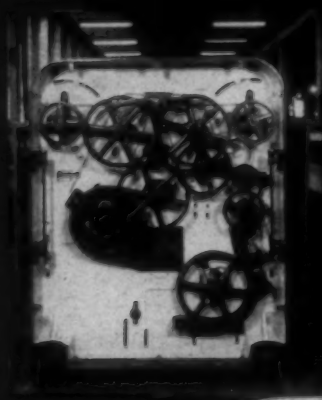
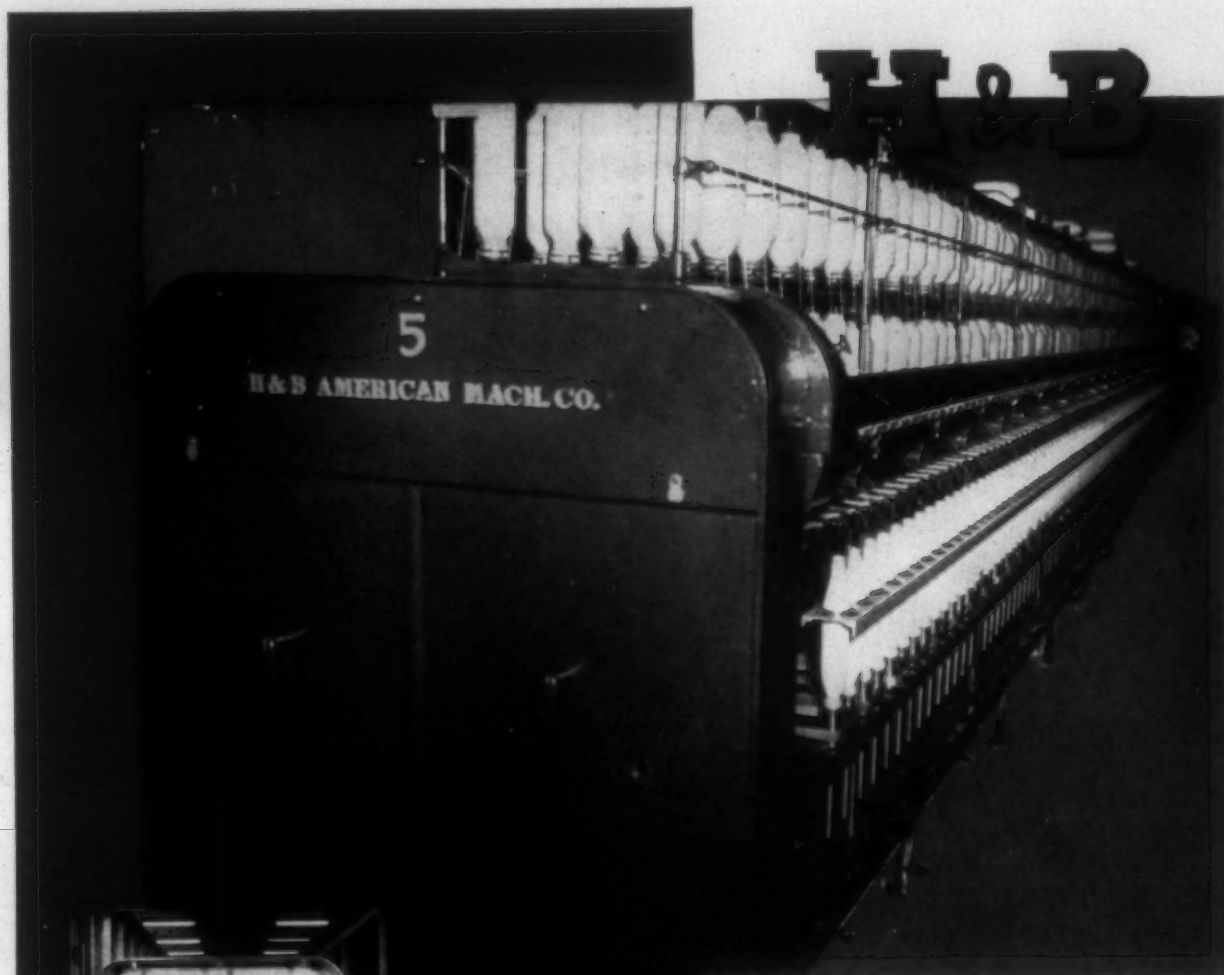
Perhaps one of our Service Men can bring you a new viewpoint; be of practical "down to shirt sleeves" kind of help. He is a specialist on Draper Looms. He has had wide experience in trouble shooting. His efforts and yours will be aided where necessary by our Engineering and Research Departments.

Why not avail yourself of this help . . . it's yours for the asking.



DRAPER CORPORATION

HOPEDALE - MASSACHUSETTS U. S. A.



Head and drafting like
drafting system and
have direct drive cylinder
in full gear.

H & B Spinning Frames are
also equipped with ex-
tended aluminum ring
rolls, spindle rolls and
roller frames.



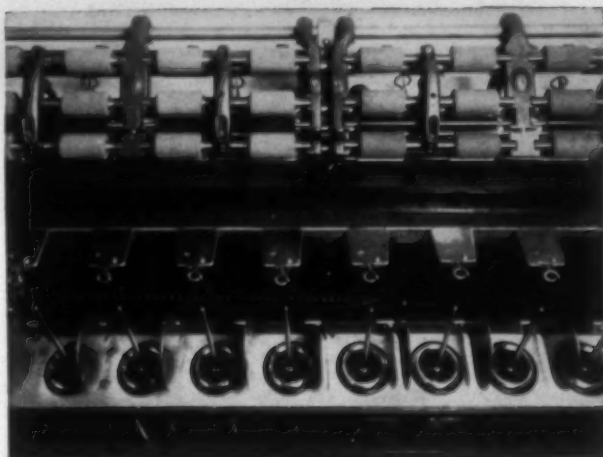
● The bare truth is that the importance of the spinning frame, stripped of whatever drafting system is used on it, is too often minimized. Just as defects in a foundation may eventually weaken and render useless any building, so may anything less than a first class frame seriously affect your spinning production. H & B Spinning Frames, whether equipped with conventional 3-roll, 4-roll Long-Draft or Casablancas High-Draft systems, are designed and built for superior performance from the beginning.

H & B AMERICAN
Builders of Modern
SPINNING FRAMES, DRAFTING SYSTEMS AND RINGS

SPINNING FRAMES

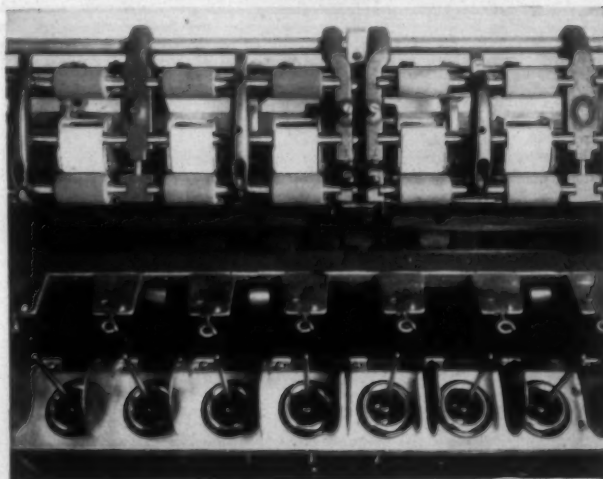
A Good Basis for Better Spinning

● For mills who prefer the simplicity and economy of roller drafting, the H & B 4-Roll Long Draft System is ideal. It is equipped with a patented weighting assembly having a minimum of parts, streamlined for cleanliness, and without stirrup adjusting screws. This is a one unit interlocking assembly wherein weighting distribution is positively controlled by one weight for all drafting rolls.



Above — 4-Roll Long Draft System

● For mills who prefer a belt system there is nothing better than H & B Casablancas. This system, with two endless belts to carry the roving, features automatic precision weighting, streamlined saddle, and a new one-piece cradle. It offers more possibilities for better quality yarn than does any conventional system.



Below — H & B Casablancas High-Draft System

Whatever your preference.

give it the added benefit of the H & B Spinning Frame.

Textile Machinery

How to add *Life* to your CARD CLOTHING



Watch out for Worn Feed Roll Bearings

If feed roll bearings are worn more than $1/32$ inch they can cause "plucked in" laps which will in turn cause bruised and jammed cylinder fillets, damaged lickerins or even broken mote knife brackets. This is because the vertical "play" between the gudgeon and the top of the bearing makes the weighting partially inoperative.

Therefore one of the most effective ways to add life to your card clothing is to replace worn feed roll bearings promptly and to clean and lubricate bearings regularly.

Worn feed roll bearings are only one of many defects which can cause poor carding and shorten the life of your card clothing. Inspection at regular intervals by men specially trained for the job is the best way to detect and eliminate these defects. An Ashworth service man is well qualified to do the job and this service will cost you nothing.

Ask us about it.

ASHWORTH BROS., INC. AMERICAN CARD CLOTHING CO. (Woolen Div.)

Fall River*†† Worcester*† Philadelphia*†† Atlanta††
Greenville†† Charlotte†† Dallas†† (Textile Sply. Co.)
*Factory †Repair Shop ††Distributing Point

PRODUCTS AND SERVICES—CARD CLOTHING FOR COTTON, WOOL, WORSTED, SILK, RAYON AND ASBESTOS CARDS AND FOR ALL TYPES OF NAPPING MACHINERY • BRUSHER CLOTHING AND CARD CLOTHING FOR SPECIAL PURPOSES • LICKERIN WIRE AND GARNET WIRE • SOLE DISTRIBUTORS FOR PLATT'S METALLIC WIRE • LICKERINS AND TOP FLATS RECLOTHED.



3 FACTORIES... 6 REPAIR SHOPS... 7 DISTRIBUTING POINTS

ARE YOU EQUIPPED FOR *Synthetics?*

Now that synthetics are becoming increasingly available, it's time to check up on your facilities for handling them.

For improved blend identification, you'll find the equipment manufactured and sold by Frank F. Fuller offers the lowest-cost, most up-to-date and most versatile method of applying fugitive tints. This is proved by the already widespread use of Fuller installations by foremost textile manufacturers throughout New England and the South.

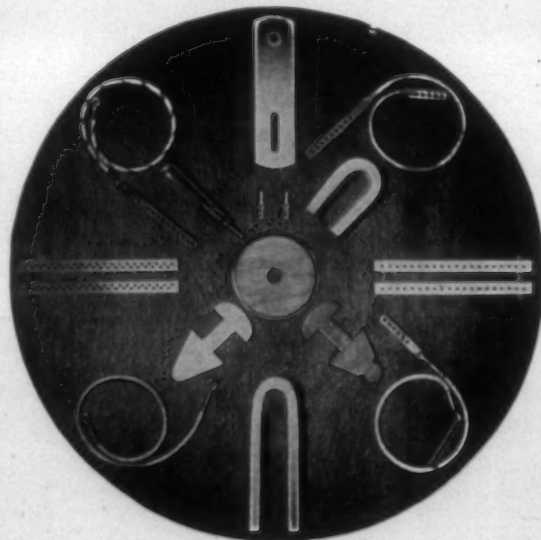
In your own production, Fuller equipment will bring many new, important advantages to the processing of synthetic fibres. Write for complete information.

FRANK F. FULLER

Textile Spraying Equipment

831 Bailey Avenue, Elizabeth 3, New Jersey

RICE DOBBY CHAIN CO. MILLBURY, MASS., U. S. A.



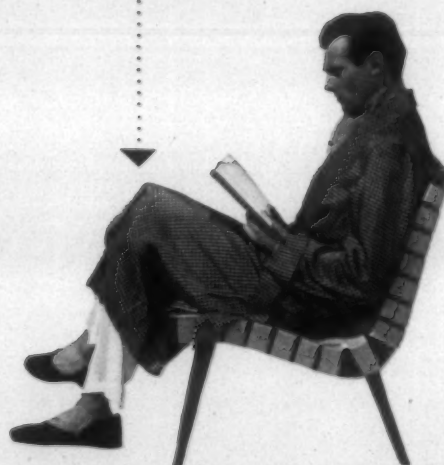
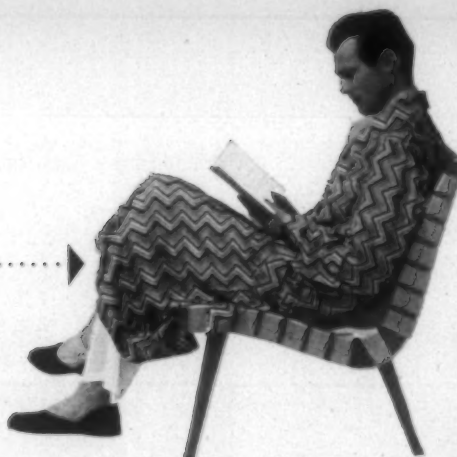
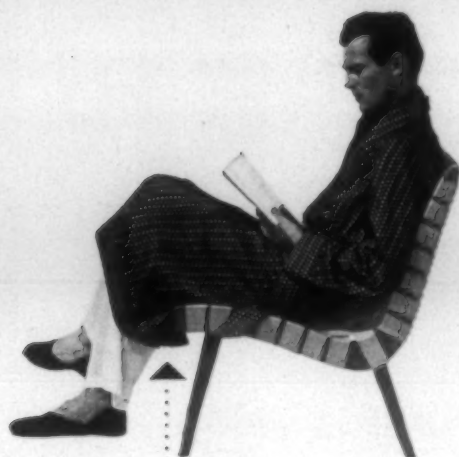
Southern Representatives

John P. Batson, P. O. Box 1055, Greenville, S. C.
R. E. L. Holt, Jr., P. O. Box 1474, Greensboro, N. C.

(READY TO SERVE YOU)

SANDOZ PRESENTS *The color achievement of the month*

robes
stafford



Within his own four walls is one place a man can give full rein to a desire to express himself in color. From the famous "stable" of Stafford robes, bearing the distinctive stallion trademark, he can select his own winning colors.

Goodman & Theise, Inc., manufacturers of Staffordwear, have selected Sandoz to participate in the dyeing of Stafford fabrics.

Typical of the Sandoz products offer-

ing economies in handling and the greatest possible certainty of color fastness is CHLORAMINE BRILLIANT ORANGE RS which has excellent properties for printing of rayon fabrics. It is the brightest of all direct orange dyestuffs and is also ideal for clear salmon-pink and tea-rose shades on underwear fabrics and sewing thread where its good wash fastness is appreciated.

For acid, chrome or direct dyes...

or auxiliary chemicals... for both natural and synthetic fibres... be guided by the successful "color achievements" you have been seeing in these Sandoz advertisements.

Sandoz application laboratories are located in New York, Boston, Los Angeles, Philadelphia, Charlotte and Toronto, where stocks in a wide range are carried. Other branches are in Chicago, Paterson and Providence.

SANDOZ CHEMICAL WORKS, INC., 61 VAN DAM STREET, NEW YORK 13, N.Y.

SA

Z

thinks ahead with textiles

S

THIS IS NO. 66 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation



VARIOUS SHAPES OF PINEAPPLE CONES (No. 50 Winding Machine)

The Pineapple Coning Attachment is capable of building a wide variety of pack-

greater the taper at the base and correspondingly less at the nose. Using a hole farther back gives the opposite effect. Selection of the proper hole to give the desired taper is the first adjustment to be made.

The next setting — preliminary to de-

perimentation is therefore necessary in order to obtain the shape of package desired.

There are no tools manufactured for duplicating the settings from one spindle to the next, but they can be easily improvised. A piece of wood whittled to proper size is all that is necessary to duplicate any of the settings.

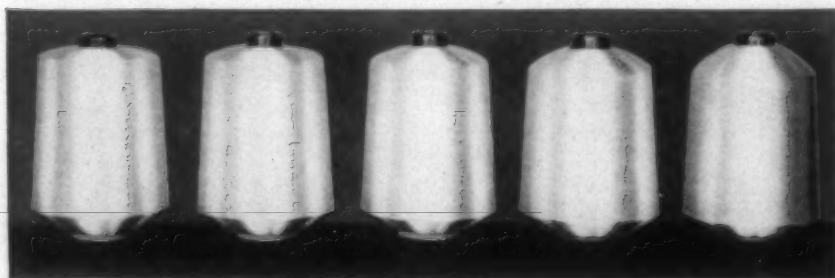


Fig. 1. Examples of variety in shape of Universal Pineapple Cone.

age shapes as shown in Fig. 1. The taper of both nose and base of cone can be varied; the winding point can be placed where desired; and there is a choice of traverse lengths.

The traverse of the yarn is controlled by the motion of the bell crank (A in Fig. 2), which in turn is controlled by the shape of the slot in the taper bar (B). This bar pivots on a center which is created by inserting a stud in one of the five holes in the taper bar and traverse frame back. The pivoting takes place as the increasing size of the package causes the inner end of the bar to travel along the groove in the builder cam (C). The use of one hole or another does not affect the amount that the traverse is shortened, but it does change the angles at nose and base of the cone. The farther forward the hole that is used, the

termining the winding point — is made with the traverse bar. There is a table in the catalog giving the normal traverse bar settings for the commonly used builder cams, but the following will do if it is necessary to use an alternate method.

1. Place the pressure roll (D) against the empty paper cone and the taper bar with the back end raised nearly as high as it will go, so that there is only $\frac{1}{2}$ in. clearance between the bar and the shoulder of the traverse frame back.

2. Check the position by turning the cone by hand through one revolution of the cam.

3. Obtain the desired winding point by screwing the traverse bar in or out of the traverse slide.

This gives an approximate position of the winding point. Next it is necessary to adjust for the traverse length. All cones are wound with a 5 in. main cam, so the length of yarn traverse must be controlled by the builder cam (C).

1. Position the builder cam holder so that it is half-way in its limit vertically.

2. Assemble the builder cam to the holder, moving it to the right or left to give the desired traverse length — to the right for a shorter traverse, to the left for a longer traverse.

With the traverse length set, a more accurate setting of the winding point is made by shifting the builder cam holder and cam assembly up or down by means of the slots. The higher the holder, the farther forward the winding point.

Whereas the taper bar hole setting affects only the taper, the other two settings affect each other to some extent, and a little ex-

Builder Cams

Any of a great variety of tapers is possible through a choice of several builder cams. The four shown in Fig. 3 are standard; the others are for special effects.

(The cams and holders can be identified by the number on the face of the part.)

No. 5 Builder Cam 50-3018-5P3. For traverse lengths of $5\frac{1}{2}$ in. or less and medium base diameter.

No. 6 Builder Cam 50-3018-6P3. For traverse lengths greater than $5\frac{1}{2}$ in. and medium base diameter.

No. 8 Builder Cam 50-3018-8P3. Same as No. 6 except that it provides for slightly more taper.

No. 15 Builder Cam 50-3018-15P3. For large diameter packages (around 6 in.) only. Taper is much less than with other cams. Not recommended for use with highly elastic yarns.

The builder cam holder used for traverse lengths under $5\frac{1}{2}$ in. (50-3017-P3) is not marked. The No. 4 holder (50-3017-4P3) stamped with a "4" is used for traverse lengths of $5\frac{1}{2}$ in. and more.

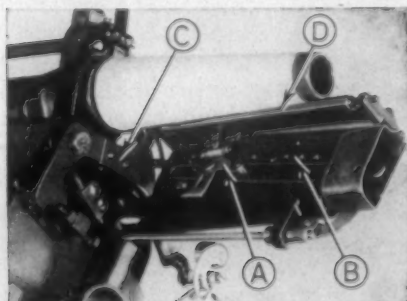


Fig. 2. No. 50 Pineapple Coning Attachment.

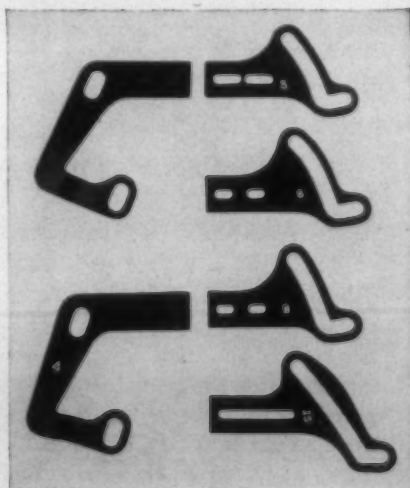


Fig. 3. Four standard Builder Cams (right) and two Holders (left).

See our Catalog in TEXTILE WORLD YEARBOOK

*Reg. U.S. Pat. Off. November, 1947

"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

23-7-3

UNIVERSAL WINDING COMPANY

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA CHICAGO LOS ANGELES MONTREAL and HAMILTON

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y.

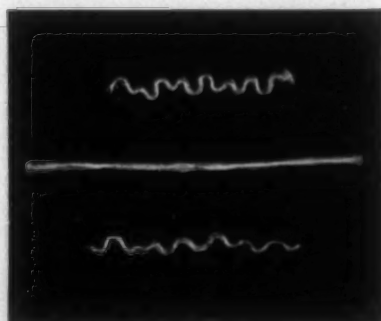
NOVEMBER, 1947

New Permanently Crimped Rayon Staple Now Achieved by American Viscose

Viscose rayon staple with a *permanent crimp*—of far-reaching importance to the textile industry—is a recent achievement of American Viscose engineers.

Many experiments on full-size machinery in AVC's Textile Research Department, as well as in mills, have already demonstrated the fiber's remarkable utility. By itself or in blends with wool, cotton, and other rayon fibers, it imparts a crisper hand and bulkier appearance. In soft-nap fabrics, it provides warmth without excess weight to a remarkable degree, by "bulking up" the yarn and preventing formation of tight, dense fiber groups. It also gives a crisp, lively, full hand to higher twist fabrics such as gabardines.

Studies further show that it presents no manufacturing problems to spinners and weavers, and calls for no new equipment and no special personnel training.



At top is a sample of the new Avisco Crimped Staple. Next is a sample that has been wet and dried out under tension. Finally it has been rewet and redried in a relaxed state, and the crimp has fully returned.

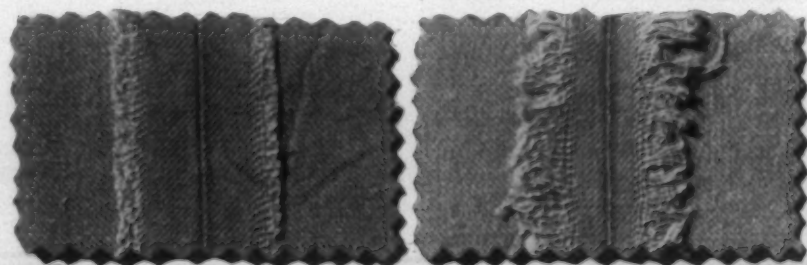
In carding, the web shows excellent cohesion without excessive neps. On the woolen and worsted systems, card rov-

ing is full and ends-down per hour are lower than with standard staple.

In drawing and spinning, too, it shows a remarkable ends-down efficiency and permits lower twist in the yarn with faster front roller speed and production. In all other fabricating operations, Avisco Crimped Staple reacts the same as standard staple.

By extending rayon's usefulness to new horizons, Avisco Crimped Staple is an outstanding example of Avisco's "4-Ply Service" in action . . . a notable achievement of AVC's continuing program of fiber research, fabric design, fabric production and fabric finishing.

For further facts as well as samples of fabrics constructed with the new fiber, write today for the booklet, "Avisco Crimped Staple." Address: American Viscose Corporation, 350 Fifth Avenue, New York 1, N. Y.



Examples of resistance to seam raveling in laundering. Left swatch is made of Avisco Crimped Staple, right of regular viscose rayon staple. Both swatches are of identical construction, and underwent 5 identical launderings.

RAYON 20 YEARS AGO



NEW YORK, Nov., 1927 — Grade A domestic rayons are quoted here at between \$2.45 for 55 denier and \$1.15 for 900 denier, per pound.



NEW YORK, Nov., 1927 — "It" girls of this Jazz Age are saying they'll never wear those long skirts again.

LONDON, ENG., Nov., 1927 — A recent patent covers a new method of manufacturing viscose rayon having a reduced luster.



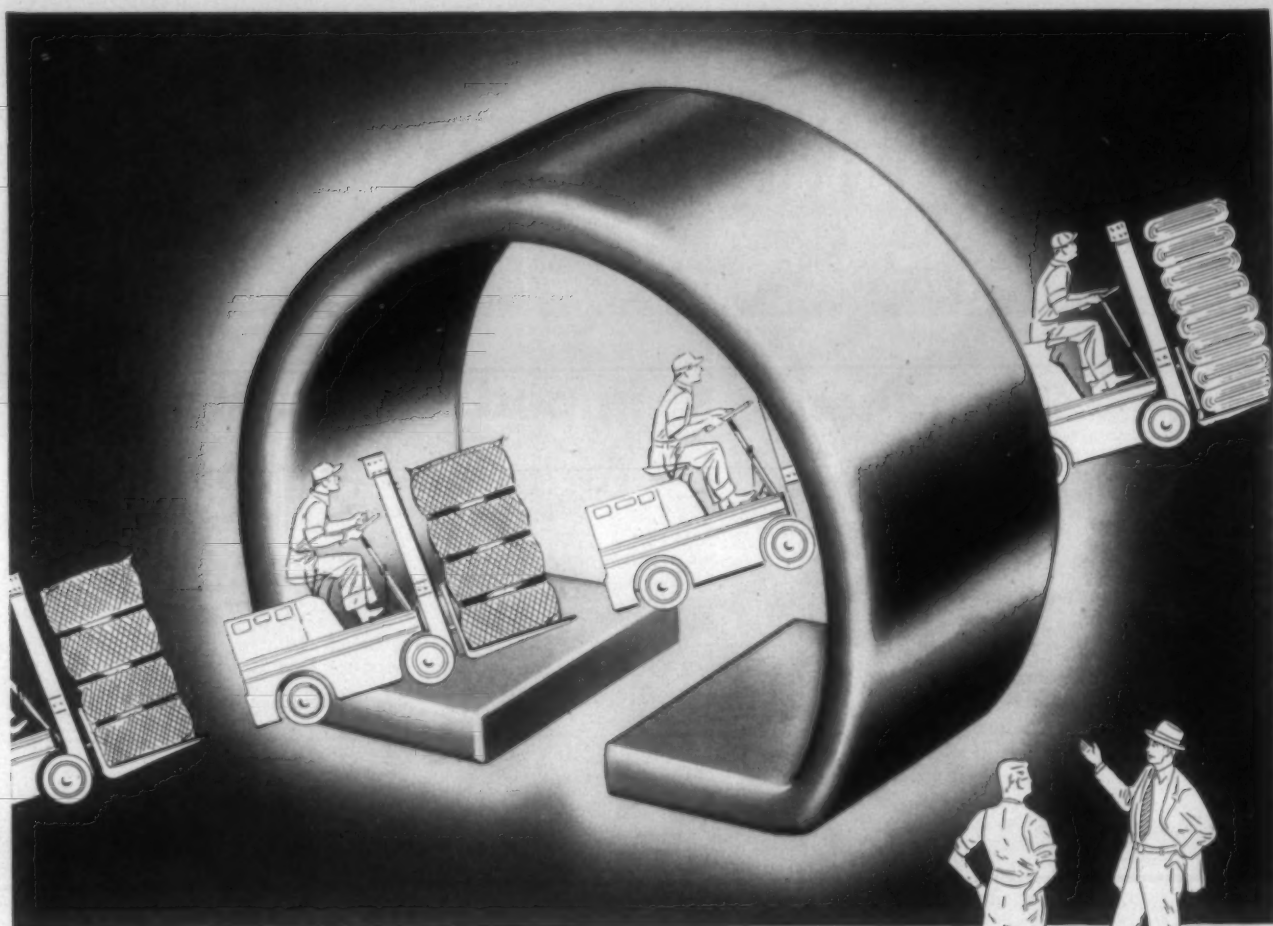
MAKE USE OF *Avisco* 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

- 1 FIBER RESEARCH
- 2 FABRIC DESIGN
- 3 FABRIC PRODUCTION
- 4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

America's largest producer of rayon
Offices: 350 Fifth Avenue, New York 1, N. Y.;
Charlotte, N. C.; Cleveland, Ohio; Philadel-
phia, Pa.; Providence, R. I.; Washington,
D. C.; Wilmington, Del.



YARN "TRAFFIC" FLOWS SMOOTHLY ... *through Victors*

SINCE MOST MILLS' entire output passes through travelers — whether yarn traffic is speeded or stalled depends on your selection.

Which are your travelers — bottlenecks or broad highways? Assuming equipment is in proper condition, if the traveler is **wrong**, the flow of work through the mill will be slowed up at the spinning or twisting, production will lag, quality will suffer, and profits will sag. If the traveler is **right**, you can meet output schedules, cut

down waste, and upgrade quality.

With the many new developments in synthetics and blends, it is becoming more and more difficult to be sure the traveler you use is **right** for the job. To save valuable time in setting up the smooth-running spinning and twisting you want, you need up-to-the-minute information.

There's a man near you who knows what you want to know about choosing travelers. He's the Victor Service Engineer and his

job is to keep abreast of every new development. He will help you select the **right** traveler for any fiber, any blend you may be running. Write, wire, or phone the nearest Victor office for prompt service.



VICTOR
3 Ring
Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. 20 Mathewson St. Tel. Dexter 0737

GASTONIA, N. C. 358-364 West Main Ave. Tel. 247

L.F.P.

Southern Shuttles

are one definite means
of
modernizing all your old bobbin
changing looms at lowest cost.

What It Accomplishes—

Permits increasing bobbin capacity with
practically the same size shuttle fitted to
your present lay-end boxes.

Advantages—

Eliminates costly replacement of lay-ends
or new lays—No lengthy changeover
time—No shifting of looms—No greater
floor space required—No leasing out and
rewarping—No loss of production.
Can be applied to any loom using yarn
counts applicable to longer bobbins.
All the "down the line" savings effected
by using fewer bobbins in spinning and
weaving.

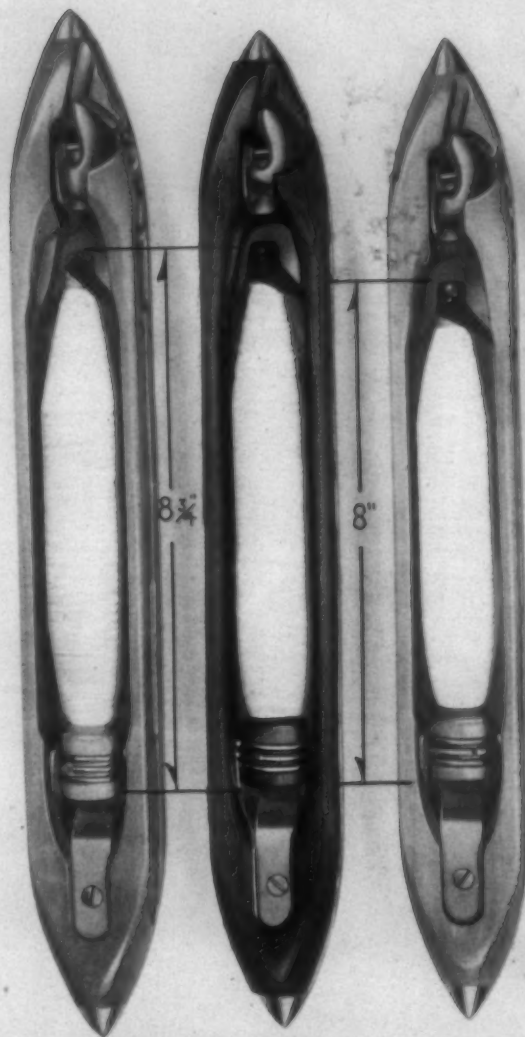
How This Is Accomplished—

By a shorter eye with same features as
long eye—Compact high speed tip con-
struction—Structural design of shuttle
strengthened—Minimum increase in shut-
tle length.

Standardize on Greater Capacity Shuttles

Have our Shuttle service men give you
complete details.

Compare the L.F.P. way with all these
advantages to the costly and lengthy
changeover method.



Same Bobbin
Capacity as
L.F.P., But $\frac{1}{2}$ "
Longer

L.F.P. More
Bobbin Capacity
Than Old Style
and Only $\frac{1}{4}$ "
Longer

Old Style With
Less Bobbin
Capacity

Southern Shuttles Division

(Cruciform Patents of the United States in Shuttle Design and Manufacture)

STEEL HEDDLE MFG. CO.

321 E. McGee Ave.
Greenville, S. C.

Latest
Data
on
Shuttles
#1
Read and Retain

NOW!

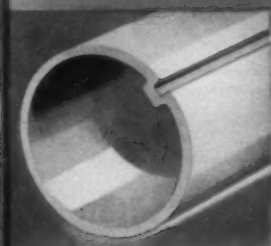


MORE PEOPLE WANT MORE ALUMINUM FOR MORE USES THAN EVER

YOU CAN REBUILD YOUR LOOM BEAMS BETTER THAN NEW

A new and better way for you to rehabilitate your loom beams! You can replace the worn-out wooden barrels with barrels of Alcoa Aluminum, specially designed for this application.

With your heads and shafts in good condition, barrel replacement in your own machine shop is a simple operation. The result is a beam better than before, for these reasons:



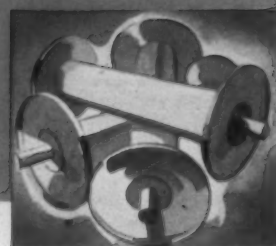
1 Smooth barrel stays smooth. Aluminum formed by extrusion to correct profile.



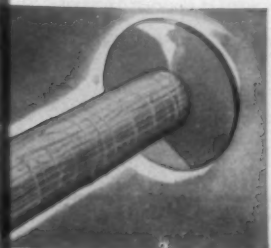
2 No splintering or warping. Rough handling, moisture changes don't affect aluminum.



3 No staining or warp. Aluminum is resistant to solution and acid atmosphere.



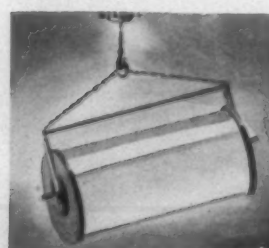
4 Sturdy construction. Thick sections withstand rough handling and stacking in storage room.



5 No grooving or crushing. Metal is better able to withstand pressures of synthetic yarns.

Start now on your loom beam rebuilding program, by replacing some of your worn-out wooden barrels with aluminum. You'll soon want more!

Order these Alcoa Aluminum Extrusions for the barrels of your loom beams, or ask for additional information and prices from the sales office nearest you. Or write ALUMINUM COMPANY OF AMERICA, 1898 Gulf Building, Pittsburgh 19, Pennsylvania.

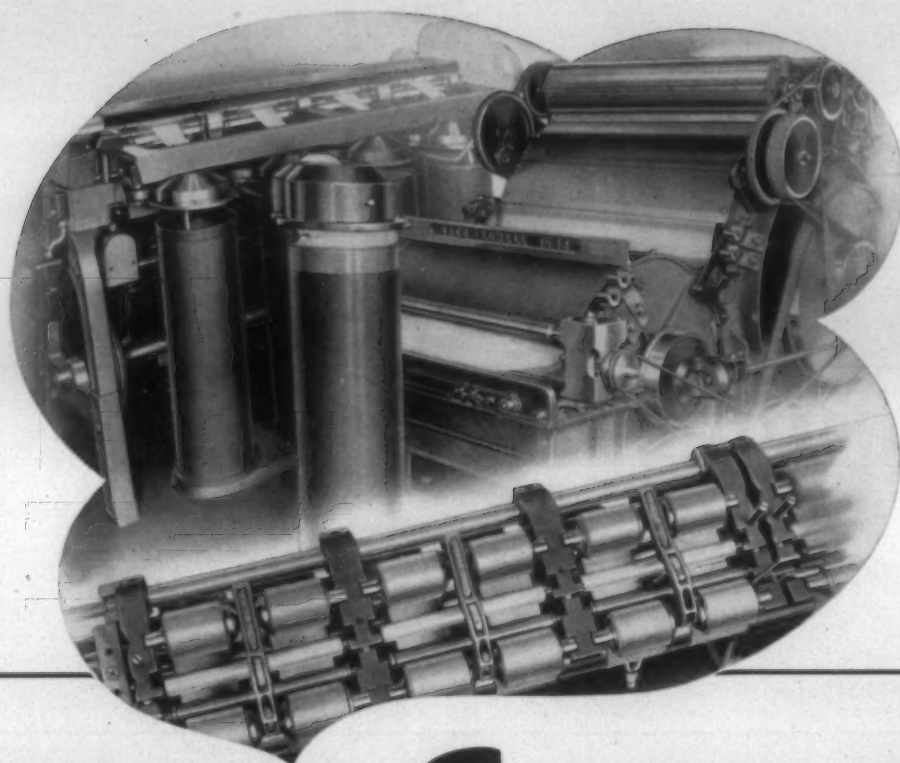


6 Light weight. Easy to handle, simplifies slasher drive problems.

ALCOA FIRST IN ALUMINUM



IN EVERY COMMERCIAL FORM



READY-MADE *Experience*



... with Saco-Lowell Specialized Machinery you can change from cotton to synthetics and back again without expensive mechanical alterations or serious loss of production.

Because fashion is so unpredictable—the need for equipment which can meet almost every changing trend, is practically a must today. But these changes must be such that they can be made quickly, economically, and efficiently.

Saco-Lowell has developed the equipment to meet these needs and requirements. With this new equipment you are ready to process whatever yarn may be in demand from one season to the next. You can blend, prepare and spin most of the accepted synthetic fibres now in commercial use today—and if necessity requires, convert to cotton processing with just a few mechanical changes.

Our engineers can be of great help to you on this important subject. Feel free to call on them for consultation and service.

SACO-LOWELL SHOPS — BOSTON

Shops at Biddeford, Maine

Branches: Charlotte • Greenville • Atlanta

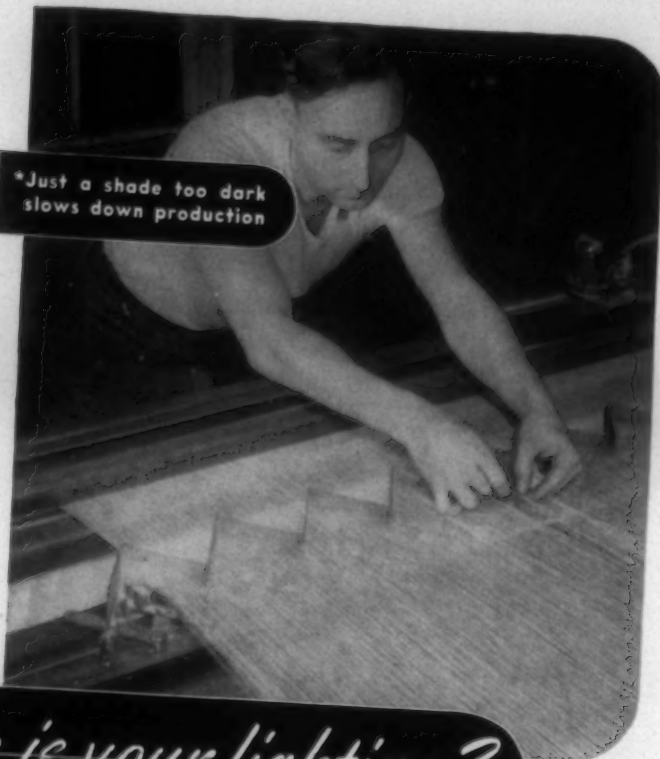
'Borderline Vision*

may be dimming
your production picture

DON'T be too sure lighting that looks all right at a glance isn't slowing your production. Borderline Vision—lighting that's just a *shade* too dim—is hard to spot.

You can make sure your light is right easily today by installing Wheeler Skilled Lighting. Skilled Lighting is a carefully engineered product that has been paying dividends to manufacturers since 1881 in increased, *better* work—higher employee morale—and decreased costs. Wheeler

*Just a shade too dark
slows down production



Which side of this line is your lighting?

Reflectors give maximum illumination from standard lamps because they *control* light. Their high reflection factor puts light to work where it belongs—on the job.

You'll see that difference in a brighter production picture when Skilled Lighting goes to work for you. Write Wheeler Reflector Company, 275 Congress St., Boston 10, Mass. Also branch offices in New York and principal cities.

Distributed Exclusively Through
Electrical Wholesalers



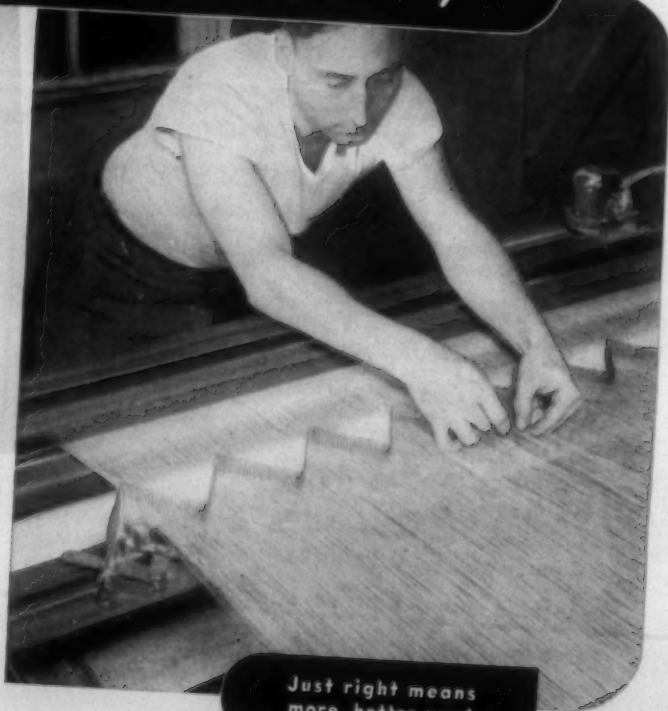
All-Steel Fluorescent Unit

For 2 or 3 40-watt, or 2 100-watt lamps. Available with open or closed end porcelain enameled reflectors. Broad wiring channel with accessible enclosed ballast. For individual or continuous runs.

RLM Solid Neck Incandescent Reflector



Maximum lighting efficiency indoors or out. Expertly designed, ruggedly built. Vitreous enamel only. 75 to 1500 watts.



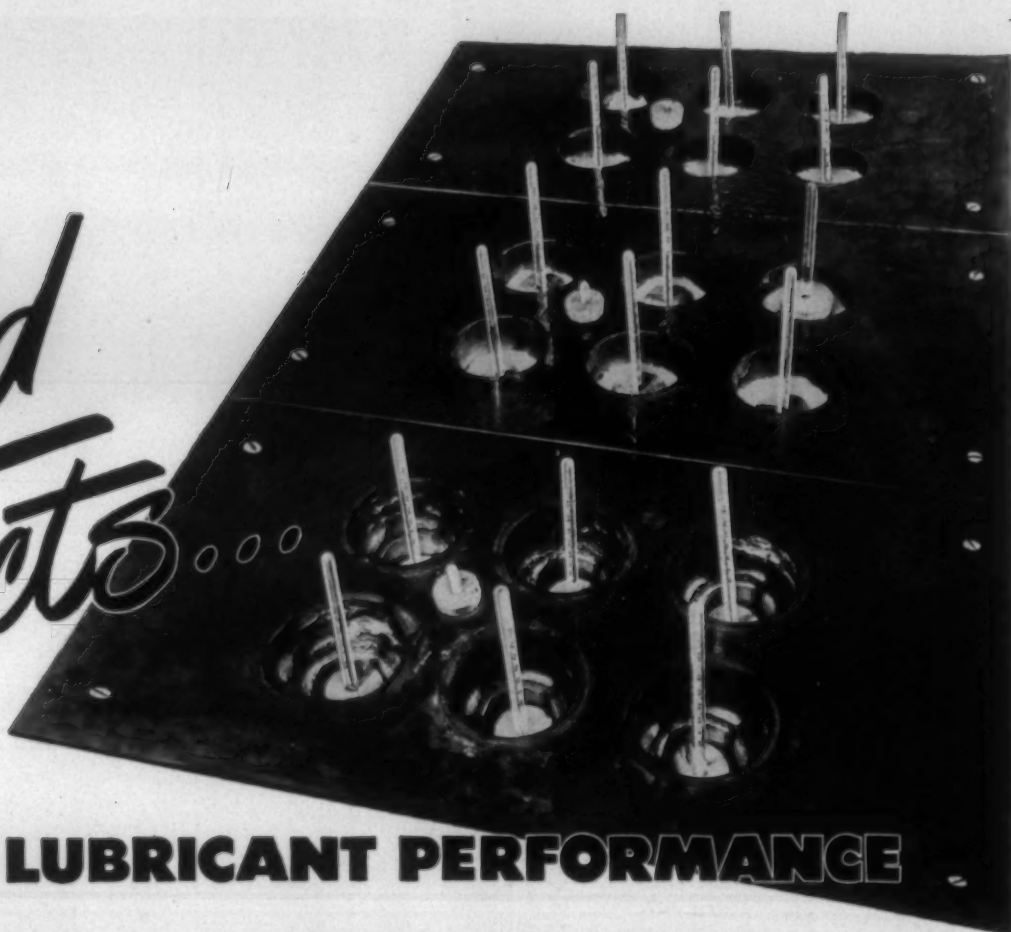
Just right means
more, better work

Wheeler REFLECTORS
SKILLED LIGHTING

MADE BY SPECIALISTS IN LIGHTING EQUIPMENT SINCE 1881

TEXTILE BULLETIN • November 15, 1947

Cold Facts...



...ON LUBRICANT PERFORMANCE

This special refrigerating apparatus at Sinclair Laboratories tells an important story every day to research experts and refinery control technicians.

The thermometers, shown above inserted in lubricating oil samples, record temperature as cold is increased in the special refrigerating apparatus. Trained observers check the samples frequently, test for pour point. Sinclair, thus, makes sure that its lubricants retain full protective qualities even at sub-zero temperatures ... when your specific application demands.

Such constant manufacturing control and research assures you that famous Sinclair lubricants ... and all new Sinclair products ... will give outstanding performance to meet your most exacting requirements.

*Sinclair
Textile Oils*

LILY WHITE OILS

In grades to suit all spindle speeds,
loads and operating conditions

Light color, long life

SINCLAIR REFINING COMPANY • 630 FIFTH AVENUE, NEW YORK 20, N. Y.

SINCLAIR

Lubricants for Industry

FINEST CRUDES + EXPERT RESEARCH

and MANUFACTURING CONTROL = OUTSTANDING PERFORMANCE



Textile Output During The Last Six Months

By RAY BELL, President, Association of Cotton Textile Merchants of New York

APPROXIMATELY a year has passed since the restrictions of price control were lifted from the cotton textile industry. While many of the regulations governing production and distribution activities were revoked by the end of 1946, final release from these additional government controls was not effected until the end of March, 1947, upon the expiration of Order M-328. Last April, in our discussion of "Ten Years of Cotton Textiles," we emphasized the value of these regained freedoms as a stimulant to production, not only in quantity but also in providing a larger proportion of more appropriate types and constructions for the commercial markets. At the time, we had in mind pending changes from the substandard war constructions and other forms of "frozen production" which, in a free market economy, were bound to be altered along more economic and practical lines.

Recent reports of the Bureau of the Census, which provide a detailed summary of production statistics for the first six months of 1947, clearly justify our announced faith in the superior incentives of free markets and private direction of enterprise. For these show—

First—that the cotton textile industry as a whole has experienced the largest peacetime production in any similar period in its history, with substantial yardage gains over the corresponding period in 1946. *

Second—that phenomenal increases in output have accrued in the areas of most urgent demand. This reflects a tremendous shift in the production emphasis away from the heavier war fabrics and toward the lighter cloths which are predominantly used in apparel and household products.

This is acceleration of the trend which started late in 1945 with the cancellation of war contracts and the consequent decline on markets for a huge volume of specialized types of goods. It explains the reason for factual evidence of a much greater increase in cloth production than would be indicated by the lesser rate of gain in raw cotton consumption. And it directly refutes certain unfounded intimations of uneconomic practices at the producing mill level. Except in the early days of expanded requirements for war fabrics, there has probably never been a period of sharper reconversion of facilities to the most pressing needs of the market.

Multi-Use Fabrics

The most striking illustration of this development is probably in the multi-use fabrics which go into distribution through a wide variety of channels and products designed for apparel, household and industrial uses. Of such cloths the most popular construction is the 80 x 80, 4.00 yard

Class A print cloth. The record shows that production of this one item increased from 82 million linear yards in the first half of 1946 to 121 million in the first six months of 1947. This is a gain of approximately 47½ per cent, or 39 million linear yards. Another staple and popular construction of Class A print cloths is 68 x 72, 4.75 yard. Here the increase was from 18 million to 47 million linear yards, or a gain of approximately 162 per cent. In contrast to such heavy diversion toward standard construction in this division of the market, there were declines in certain war constructions, but the over-all increase in the division which comprises all print cloth yarn fabrics was approximately ten per cent for the first half of 1947 over the corresponding period of 1946, or 143 million linear yards.

In another large group of multi-use fabrics, Class C narrow sheetings, the record shows a gain of about 24 per cent, or 26 million linear yards for the first half of this year over the same period last year. Class B narrow sheetings jumped from 268 million to 309 million linear yards, an increase of 41 million linear yards. Narrow drills advanced 20 million yards from 141 million in 1946 to 161 million in 1947. Four leaf twill fabrics, however, which include Type IV Army uniform twill, declined from 119 million linear yards to 93 million. Three leaf pocketing twills increased from 20 million to 26.8 million.

Apparel Fabrics

Proceeding to fabrics whose use is substantially confined to the apparel fields, there is a noteworthy improvement of approximately 50 per cent in carded broadcloth of all constructions—from 68 million linear yards to 107 million. In the fine goods division, combed and part combed broadcloth showed an even greater increase of approximately 76 per cent, for the production in 1946 was 37 million yards against 65 million in the first half of this year. Lawns and organdies moved from 55 million to 74 million, a gain of approximately 32.8 per cent, and fine yarn shirtings from 36 million to 50 million, or about 37 per cent. Combed sateens had a 50 per cent gain and fine yarn oxfords about 40 per cent, from 20 million to 28.3 million linear yards. Marquisettes, which are extensively used for household products, went from 111 million to 125 million, or approximately 13 per cent.

Apparel fabrics also predominate in the napped fabrics division of the industry where, according to census records, a total of 261,345,000 linear yards was produced during the first six months of 1947. This is a gain of 40.5 million yards over the corresponding period of 1946, or approximately 19 per cent. The bulk of the yardage in this group

is for outing flannels of which 97,539,000 yards were made through June. Shirting flannels increased 131½ per cent, canton flannels 16 per cent and interlining flannels almost 60 per cent this year.

Work Clothing Fabrics

Work clothing constructions loom large in the division of colored yarn woven fabrics. Here, denims went up from 108.3 million to 143.5 million linear yards, a gain of more than 35 million yards, or approximately 32½ per cent. Shirting coverts from 12.4 million to 23 million linear yards, or approximately 85 per cent. Gingham, checks and plaids with nine per cent gain in production, and pin stripes, checks, and hickory stripes with 116 per cent increase represents extreme variations of the same pattern in productive activity. The total increase in all colored yarn woven goods was around 19 per cent, or 56,855,000 linear yards.

Other specialized clothing fabrics which show substantial gains in production for the first half of the year include corduroys from 24 million to 30.8 million linear yards and velveteens and plushes, etc., from 8.7 million to 9.5 million linear yards. Another specific item of apparel that reflects a growing market is birdseye diaper cloth where the 19.8 million linear yards made in the first half of 1946 has increased to 31.2 million in the same period of 1947. This gain is nearly 12 million yards, or approximately 62 per cent.

Household Products

Certain other divisions of the industry normally are regarded as primary producers of household goods. These would include bed sheeting for sheets and pillowcases where the six months' production for 1946 increased from 148.3 million linear yards to 177.2 million in 1947. This gain is approximately 20 per cent, or 28.8 million linear yards. Turkish and terry woven towels, wash cloths and bath mats also belong to this category. Their yardage rose from 112 million to 119.5 million, or approximately seven per cent. Table napery went up from 15.1 million linear yards to 17.6 million, while there was a net decline in the production of drapery, upholstery and tapestry fabrics. Woven bedspread fabrics increased from 14.7 million linear yards to 15.9 million.

While these samplings of productive performance embrace a wide range of fabrics that are made for many and often unrelated markets, by no means do they cover all the

fields of activity with which the cotton textile industry is associated as a source of supply. In cotton tire cord and fabrics, for instance, a separate classification shows a production of 186 million pounds in the first six months of 1947 is reckoned at 4,939,747,000 yards. This equals a total increase of 348,105,000 yards over the 1946 figure. Besides the cotton type, there was produced in the same period almost 110 million pounds of rayon and nylon tire cords and fabrics, making a grand total of 296,014,000 pounds of cord and fabric for tires. Earlier figures give a 12 months' production in 1941 as 240,251,000 pounds of cotton and no rayon and for 1939 only 163,388,000 pounds. Here is a post-war production performance that would be difficult to match anywhere.

Without inclusion of tire fabrics, the gross linear yardage of broad woven cotton goods for the first six months of 1947 is reckoned at 4,939,747,000 yards. This equals a total increase of 384,105,000 yards over the 1946 figure for the similar period, or 7.58 per cent. It can be plainly seen from the preceding details that this over-all figure has little significance in the appraisal of production results with respect to any given division of fabrics within the industry and particularly relative to specific types of cloth or constructions within the division. The major significance of the record for the period since de-control lies in the combination, first, of a general over-all increase in production, and second, but even more important in very sharp increases in the production of the goods that the people of America want. This industry has been producing without stint, to the fullest extent which the employable labor force and like circumstances would permit, and has been producing to the order of its customers, whether they be converters or wholesalers or garment manufacturers or retailers or others. Where the demand has been, there also has been the greatest pressure, and thence the greatest production effort has been concentrated to provide what was wanted and to check in so far as is possible the inflationary effects of our present economy.

Both the over-all production record, and the specific record of production of the most wanted fabrics, together with a constantly very low stock position of the mills, constitute proof positive that the textile industry, unaffected by talk of "consumer resistance" or by "strikes" of buyers, has driven ahead single-mindedly on the course of providing all the textiles that could be made to meet a country-wide and world-wide shortage of goods. The figures shown herein are the measure of the success that has been obtained in the short period of free markets we so far have enjoyed.

FROM RHODE ISLAND TO NORTH CAROLINA

Supply Of Labor Is Better In Rockingham

By LEO SONDEREGGER

JOE AND MARY led a pleasant life. In winter they worked in the Peace Dale (R. I.) Mills, helping to produce woolens and worsteds of excellent quality. And when summer came they quit working and went to their camp on Salt Pond to breathe fresh air and build up their health for

another winter of toil. It isn't that Joe and Mary had a summer-long vacation. Technically, they were employed all through the balmy months. But they had recurrent "ailments" which became painful in early June each year. This necessitated visits to the doctor, and long periods of recuper-



"Pontamine" *

FAST RED 7 BNL

Suitable for all forms of cotton and viscose rayon. Good to very good light, dry cleaning and wet fastness when dyed on rayon... good resistance to sunlight, dry cleaning, and perspiration when dyed on cotton. Exhausts well... level dyeing... very good solubility. Animal fibers in mixed-fiber combinations are left practically unstained at lower temperatures. E. I. du Pont de Nemours & Co. (Inc.), Dyestuffs Division, Wilmington 98, Delaware.

* REG. U. S. PAT. OFF.

*Du Pont
Dyestuffs*



ation. For grocery money they depended on cash sickness benefits, for which they had only to file an occasional statement from their doctor attesting that he had given them treatment.

Joe and Mary are by no means typical of Peace Dale Mills workers. But they illustrate one of the several factors which management blames for a production slump that had a major part in the company's decision to move its worsted operations into a North Carolina mill.

Many Work-Hours Lost

The management calls it absenteeism. One of the mill workers declared rather belligerently, "It's not only absenteeism, but independence." Whatever it is, it has lost a lot of man-hours that can never be made up.

Most of the absenteeism is not the rather spectacular kind in which Joe and Mary indulge. But small instances accumulate. Not long ago Mill Superintendent Reuben B. Eaton had on his desk "60 or 65" statements from doctors saying workers had visited them for treatment. He picked up one of the statements at random and checked on that worker's record. She was a girl—there's more absenteeism among women employees than among men, incidentally—who had worked only five full 40-hour weeks out of the past 21. Her weekly record showed 24 hours, 30, 24, 32, 24, and so forth.

Other employees had similar records; sometimes they would be off because of "sickness;" other times they give, Mr. Eaton says, "all the reasons in the world" for their absence. Sometimes an absentee happens to be a key worker whose absence can throw a monkey wrench into a department's production machinery.

Asked why malingerers have not been discharged, Eaton

declared, "We were so hungry for help that half an employee was better than none. If a fellow could come up to that gate, we'd bring him in and put him to work."

No Cash Sickness Law

In Rockingham, N. C., to which worsted operations of the Peace Dale Mills are being moved, absenteeism is virtually unheard of. There is no cash sickness law in North Carolina, and workmen's compensation laws are interpreted strictly. Community sentiment frowns on malingering. The old formula, "a good day's work for a good day's pay," still has popular sanction.

It happens that Hannah Pickett No. 2, the mill into which Peace Dale worsted operations are being moved, has a particularly good reputation for steady production. Its manager, J. E. McInnis, said most of its labor force is made up of permanent workers. Some of the other mills have a lot of "floaters," he thinks, but the Hannah Pickett workers are the kind who put down roots.

Absenteeism is only one of the several varieties of worker trouble which have plagued the Peace Dale management. Officials of the company are reluctant to put themselves on record as blaming the C. I. O. textile union for their problems, but they do not hesitate to say that they expect considerably less trouble in North Carolina, where they are going into a non-union mill.

How long it will stay non-union is, of course, up to the workers. Presumably there will be an election, in which they may or may not repeat the strongly anti-union vote recorded during the summer of 1946.

Union Is Blamed

Off the record, company officials from the top down do not hesitate to put the finger on the Textile Workers Union of America as the biggest fly in the ointment of their labor relations. This is not intended to imply that union tactics have necessarily slowed down production at Peace Dale. But it is apparent that the company believes this, believes it strongly enough to welcome a move into a plant that is at present not unionized.

The Peace Dale Mills actually have been free of major labor trouble. But officials make clear their belief that the union has been responsible for varying degrees of featherbedding, slowdowns and other industrial ailments. They insist that an almost constant flow of union demands and representations interferes with steady production and cuts heavily into management time.

President John P. Stevens, Jr., of the powerful J. P. Stevens & Co., Inc., which controls Peace Dale Mills and many others in several states, said in New York that his firm had studied production records in the South and expected fewer labor difficulties in North Carolina than in Rhode Island.

In the South, one official said, a test is run on every operation in a mill; the rate and work load are established on the basis of that test. "But up here," he added, "a spinner operates four sides, and if she could operate six sides she just won't do it. The work load is all established, and it doesn't vary."

With Company Many Years

The T. W. U. A. people acknowledge the truth of this, but they assert that it is the union's concern to protect the


TAXATION—A Comparison

Continuing the comparison of operating figures in the four Franklin Process Co. plants at Providence, R. I., Philadelphia, Pa., Greenville, S. C., and Chattanooga, Tenn., we come now to taxation. Based on comparable values, the combined city and county taxes levied against the Pennsylvania and South Carolina plants approximate the amount assessed against the Providence plant. To arrive at comparable figures an accountant used the percentage of assessed value to net book value for the year 1946, applying it to the net book value of the Providence plant. The Rhode Island plant was far in the lead with \$21,513.50. The second plant, Chattanooga, was more than \$5,000 less with a total of \$16,369; South Carolina was next with \$13,986, and the Pennsylvania operation was about one-third of the Providence plant total with \$7,759.

Lumping city, county and state taxes puts the Providence plant at the top of the list with a \$41,513.50 tax bill exclusive of additional imports as the result of dividends from subsidiaries based on hypothetical income. The South Carolina plant would have approximately the same combined tax bill (\$38,986) as the Pennsylvania plant (\$39,009), but Tennessee makes by far the best showing with combined bills totaling \$28,169—some \$13,000 less than the Providence plant pays.


Automatic CEILING CLEANING

by
**AMERICAN
MONORAIL**



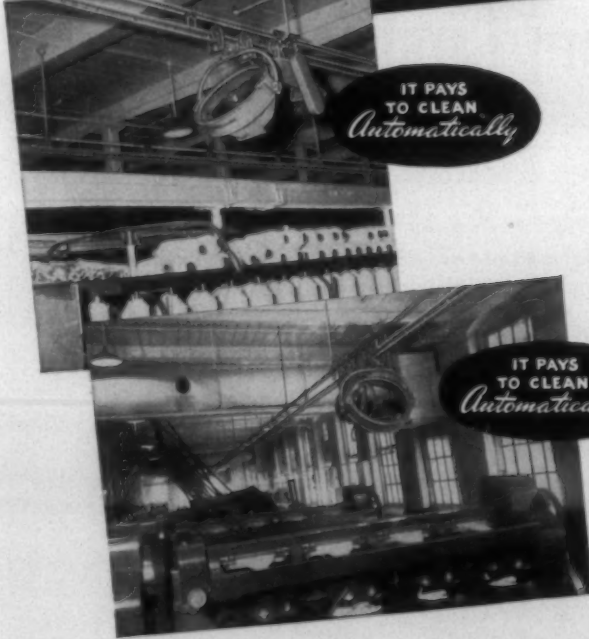
IT PAYS
TO CLEAN
Automatically

Mops, brooms and air hoses are out as far as ceiling cleaning is concerned. High labor cost and lost production during time down make these tools obsolete. In one mill these costs amounted to approximately \$1.50 per hour—the cost of installing automatic ceiling cleaning was absorbed by savings in less than a year.



IT PAYS
TO CLEAN
Automatically

Automatic cleaning is installed on overhead monorail track. A high-velocity propeller type fan unit travels around a loop of monorail track and sends a blast of air against the ceiling preventing any accumulation of lint or fly.



IT PAYS
TO CLEAN
Automatically

Fans may be adjusted to reach any spot in the room. Automatic ceiling cleaners are no longer an experiment. They are being installed in many mills. Let an American MonoRail engineer give you complete details.

THE AMERICAN

MONORAIL

COMPANY

13136 ATHENS AVENUE

CLEVELAND 7, OHIO

workers from excessive work loads. Their attitude is simply that the union is there to speak for the workers and to preserve their rights.

One union spokesman, a worker who has been with the company for many years, felt something went out of management-worker relations at Peace Dale when the mill owners, M. T. Stevens & Sons Co. of North Andover, Mass., were absorbed by the giant J. P. Stevens & Co., Inc., in 1945. "You know," this worker said, "this new company—they're all business. They're either gonna make money or go where they can."

An indication that the Stevens people are not in business for their health may be found in a remark made by John P. Stevens, Jr., "If we find we can't get production in the remaining woolens section, that will eventually have to go, too."

In the eyes of another mill worker in Peace Dale, "The company's like a kid that has a ball and bat. He goes over to the field, and if the other kids won't play his way, he'll take his ball and bat and go somewhere else." Whether that was the company attitude, the fact remains that it has made the move. And it also seems likely that, at least in the near future, its labor relations are going to be smoother in North Carolina than they have been here.

Mill Not Unionized

The mill in Rockingham, Hannah Pickett No. 2, has not been unionized since it was built in the early 1920s. And despite the C. I. O.'s apparent determination to make the Rockingham area a testing ground for its Southern textile organizing campaign, there is a fair chance that the plant will remain unorganized.

The biggest mill in the area, operated by the Safie Mfg.

Co. of New York, had several hundred of its workers on strike for many months. The management claims that some 500 of its normal 1,100 workers returned to the job. An additional 300 were hired outside.

Thus the plant, which normally runs on a constant three-shift basis, now is operating one shift and about two-thirds of another. It appears to be gradually "creeping up" on the union whose principal demand is signature of a contract with T. W. U. A.

The Safie mill situation was closely watched throughout the Rockingham area. It is regarded as a test case.

One prominent businessman declared jubilantly, "the strike is definitely broken; they're on the run now."

Scant Margin for Union

Alex Monroe, Safie manager, points out that when Safie workers voted last March on whether they wanted T. W. U. A. to represent them, the union won by the scant margin of 494 to 449. He claims that a number of workers who voted for the union now want to come back to work but are afraid because of violence which has broken out repeatedly.

A Rockingham businessman who is prominent in civic affairs and has a penchant for colorful language said he thought the Safie strike coming on the heels of the shutdown of two other mills, had given textile workers in the area "a bellyful" of the union. "There is no more chance of the C. I. O. spreading to other mills," he declared, "than there is of my goin' to heaven this minute."

The Stevens people would like to believe that. They would like to believe that they will have a chance to get their machinery set up in Hannah Pickett No. 2 and start producing worsteds without interruption. Time will tell whether they can do that.

Fall Meeting Of Eastern Carolina S.T.A.

THE fall meeting of the Southern Textile Association's Eastern Carolina Division was held Nov. 8, 1947, in the Erwin Auditorium at Durham, N. C. Presiding over the meeting was A. R. Marley, chairman of the division, and superintendent of the Erwin Cotton Mills Co. Plant No. 1 at Durham. Following is a stenographic account (abstracted to some extent) of the proceedings.

CHAIRMAN MARLEY: The first subject for discussion is the squeeze roll covering for slashing. Mr. Harden, will you tell us what kind you have?

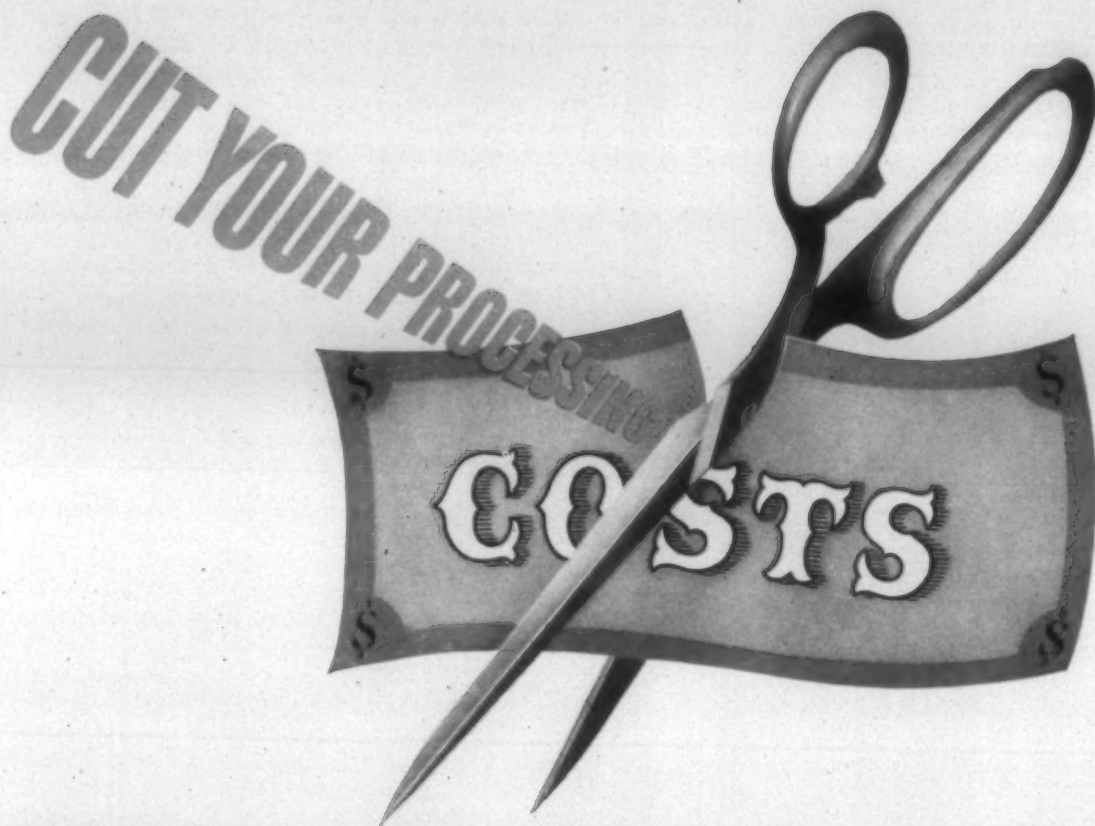
M. R. HARDEN, superintendent, Erwin Cotton Mills Co. Plant No. 4, Durham: On the squeeze roll we use a base of sheeting; then burlap over that, primarily to knock the size off; then on the next roll we use a wool blanket. We use an old blanket over that and remove it after the first run; we think it prevents a lot of streaking. We have been thinking about making our two rolls uniform in weight, the front uniform, so we can swap our blankets and break in the new one. Before covering a roll we scrape it down and cover it with white lead.

D. A. PURCELL, superintendent, Fieldcrest Mills, Draper, N. C.: We have been using synthetic rolls for about a year. Our experience is not so good on the front rolls, because they become grooved. For the last six months we

have been using a synthetic roll for the back roll, and it seems to be all right. I think there is a possibility of saving in blanket cost there.

THE CHAIRMAN: Our next subject is waste from the slashers and methods of controlling it. Other related questions deal with regulation of stretch at the slashers, and with storing size over the week-end. Mr. Meikle, will you tell us what you are doing about slasher waste?

J. R. MEIKLE, assistant superintendent, Patterson Mills Co., Roanoke Rapids, N. C.: We have our regular section beam tickets that come down to the slasher room. Those beams come to the slasher and are given the number corresponding and placed in the set and cradle. The slasher operator has forms on which he marks down any defects which may show up on a beam while he is running a set—such as low selvage, or high, slack ends, or anything else that may show up—anything that might cause an unusual amount of waste. He also puts on there the number of yards and, at the end of the set, the actual number of yards run out, so we can check up again. Then, if any particular beam runs short, we can check back with the warper and find out why it happened. Also, when putting in a set we run six or eight yards without size and then put the squeeze roll on. He starts the slasher back up with only the soft



WITH **Cyanamid** SULPHONATED OILS

A Wide Range of Superior Oils

is becoming more generally available as Cyanamid's channels of raw material supply continue to open up.

AMONG CYANAMID PRODUCTS FOR THE TEXTILE INDUSTRY ARE . . .

AQUASOL* Sulphonated Castor Oils, No-ODOROL* Finishing Oils, DECERESOL* OT Wetting Agents, Penetrants, Softeners, Finishes, Sizing Compounds, PARAMUL** 115 Water Repellent, and other specialties and Heavy Chemicals.

For low-cost chemical equivalent of distilled H₂O . . . FILT-R-STIL* Demineralizing Units.

** Trade-mark

* Reg. U. S. Pat. Off.

Yes! Cyanamid sulphonated oils will help you cut right through one of your most pressing problems. For when you use Cyanamid sulphonated oils, you put increased efficiency and dependable performance to work *cutting your costs* by improving your processing. For the absolute uniformity and high quality of Cyanamid oils—made possible through large-scale production methods—eliminate costly guesswork and help achieve excellent results every time.



*Industrial
Chemicals
Division*

**AMERICAN
CYANAMID
COMPANY**

30 ROCKEFELLER PLAZA • NEW YORK 20, N. Y.

waste he has in there, which amounts to about six or eight yards. We found that to be quite a bit of trouble on our older slashers; but on the new high-speed slashers we are able to do it more readily, since there are levers on the sides by which the squeeze roll can be lifted up; and that makes it easier on the operators.

THE CHAIRMAN: How do you control your stretch there?

MR. MEIKLE: Well, of course, on the new slashers there are variable-speed drives by which you can control it very readily. We find that the less starch we can put in it the better running we get in the weave room.

Storing Size

QUESTION: How about the storing of size over the week-end?

MR. MEIKLE: Yes, we have been trying that for the last six or eight months. We are operating the slashers three shifts. On Saturday mornings, when we stop off, we generally have as much as half a kettleful left over. We take it out of the storage kettle and put it back in the cooking kettle. We have a solution we add to it, and we put this solution in there, and on Monday morning we can heat it up so much more readily in the cooking kettle with the open steam line. We heat it up and put it back in the storage kettle. We have found it very successful so far. We have not found any difference between that size we store over the week-end and the size we cook up Monday morning.

THE CHAIRMAN: How long do you think you can safely store it?

MR. MEIKLE: Well, the week we closed down for vacation, just out of curiosity we kept 75 gallons in there for a whole week; and it did not sour. It did seem to jell a little bit. We thinned it out and, again just from curiosity, ran it on some warps. It did not do quite as well as the fresh size, but it did right well.

CHAIRMAN MARLEY: I have heard of its being kept for 36 or 48 hours, but never that long. Will you tell us what percentage of waste you get from the slashers?

MR. MEIKLE: Well, of course I think that depends on the type of yarn, whether fine or coarse, and whether colored or white; but we try to get less than one-half pound per beam.

THE CHAIRMAN: How often do you take a lease on it?

MR. MEIKLE: When we change the warp from the loom beam.

CHAIRMAN MARLEY: Mr. Green, how about your waste on the slashers? How do you control it?

SYDNEY GREEN, vice-president, Eno Cotton Mills, Hillsboro, N. C.: It seems to me that perhaps the most of the waste is made after you take the loom beam off. We ought to take every beam that comes from the slasher and have a piece of tape—or two, I believe, because you have to cut between them, leaving every thread in its place, and then take that to the knotting machine and tie it. My friend Meikle perhaps ties in from that. I think there is more waste from that, even in a little job like ours. We run 225 or 250 beams a week, and if you waste two yards on each that is 500 yards a week. It seems to me there is more waste than on the old type of beams. Where you have equipment such as you have in Durham there should not be any variation to speak of on eight or ten-beam sets. I do think that the waste comes between the slasher and the loom rather than at the slasher.

THE CHAIRMAN: If you have this variable speed, how do you control your stretch?

MR. GREEN: I don't know; others know more about that than I do. But it seems to me that the variable speed has more to do with controlling the moisture than the stretch. Most of us have old-type slashers, and the only way we can take care of it is to be sure that the squeeze rolls are the same diameter in the size box and then be careful that we do not put too much cloth on the front. If you put more cloth on there you are increasing your stretch. That again is governed by the number of ends that you have in your set. A machine running 5,000 ends has to have a little more attention than one running fewer ends. The more ends, the more you must separate, and the heavier sheet you must have on the front to separate the yarn coming through the split rolls.

B. F. RYALS, overseer, Roanoke Mills Co., Roanoke Rapids: We control our waste in practically the same way Mr. Meikle does. If we have a beam run out short, the warper tender's name is on the beam, and we go back and see what the trouble is. But we do not have as much trouble with the new type of beam we are running now as we did with the old type. Mr. Meikle said he has about a half-pound of waste to a beam, but I do not believe we have quite that much. We run 12 to 18 beams, but I do not think we have quite a half-pound to the beam. I believe we may run a little under that.

CHAIRMAN MARLEY: Have you tried storing any size over the week-end?

MR. RYALS: We tried it one time—last week. But we left our size in the storage kettle. That is heated by closed coils, and we put the door to the coil down and could not tell any difference. We left it just from Saturday morning to Monday morning. That was the first time we had ever left any over the week-end. We set the temperature back to 90 and maintained it there. It mixed with the rest all right when we started up.

Short Ends on Beam

MR. HARDEN: Some of these men have the new warpers. Speaking about the waste they have from the second beam not being as great from the new warpers as from the old, we do not have quite as much, either; but we have it coming from a different cause. In the new warper the drop wires are on the creel, and those drops sometimes will be held up by an end that breaks up near the comb somewhere, and the other ends on the comb will hold that end up and consequently hold the drop wire up and not let the beam stop. We have an end that is lost on the beam somewhere. Some of those loose ends will run out sooner than the rest of the set, so we have waste from that. Instead of having unevenness on the various beams in the set we have a loss or waste because of a difference in the run-out of ends on the same beam. I wonder if anybody has a remedy for that or any suggestion as to how to prevent lost ends on the warper beam? That is our biggest problem.

MR. RYALS: Has he tried moving his warper creel back from the warper? That would give him more time after the wire falls. We have a distance of about 11 feet from where the wire falls to where it goes on the beam. We are using the high-speed warper.

J. E. SHAW, Rosemary Mfg. Co., Roanoke Rapids: I should like to add a little to this waste problem. We have to add 100 yards extra on a beam so that the set will run out correctly. In other words, we might have 25 yards plus on that beam, but we feel that it is much better to have one



COLOR
SELLS
KNIT GOODS



Franklin Process

PROVIDENCE • PHILADELPHIA • GREENVILLE • CHATTANOOGA • NEW YORK OFFICE, 40 WEST STREET

Marquette ROLLER BEARING COTTON SPINDLES

with **FULL-FLOATING FOOTSTEP BEARING**

..... insure continuous operation and reduce your costs. The standard Marquette cotton spindle, equipped with aluminum adapter (as illustrated) for use with paper tubes, is one of many types that has been giving satisfactory service for many years.

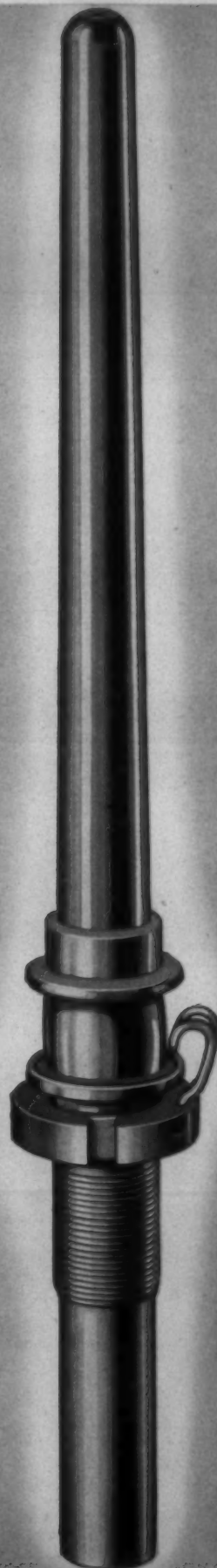
Write for illustrated catalog

The **Marquette** METAL PRODUCTS CO.
CLEVELAND 10, OHIO

SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Manufacturers of: HYDRAULIC AND ELECTRIC WINDSHIELD WIPERS • FUEL OIL PUMPS
HYDRAULIC GOVERNORS FOR DIESEL ENGINES • ROLLER BEARING TEXTILE SPINDLES
AIR COMPRESSORS • PRECISION PARTS AND ASSEMBLIES

BYRD MILLER, WOODSIDE BUILDING, GREENVILLE, S. C.
WILLIAM P. RUSSELL, BOX 778, ATLANTA, GEORGIA
M. O. THOMPSON, 80 BOYLSTON ST., BOSTON 16, MASS.



beam with 25 yards more than to have ten beams with 25 yards less.

S. G. RILEY, superintendent, Pilot Mills, Raleigh, N. C.: We have some beams that we actually have to run the dyed beams 200 yards longer than the rest, to make them run out together. That sounds fishy, but that is on sulphur black. We have to run the dyed beams heavier than on regular warp.

MR. SHAW: The last few years we have changed over to beam dyeing and do have more waste from beam dyeing than from the other method. I think the reason is that the yarn is more elastic and when it is wet it does not come back. We have to put more weight back there to hold it so when the slasher is stopped off it will not turn. I do not think we have much variation between the combination beams and the wet beams. We do run quite a few stripes and have maybe one beam that is wet.

QUESTION: Do you have to run more weight on your dyed beams?

Unbalanced Beams

MR. SHAW: It depends on the type of creel you have. We have installed in the last few years ball bearings on the ends of the journals. We used to have the old kind, in which there would be a little friction at the end of the stands and you would not have to use as much weight. In the old way the heavy beam was always resting against the stand, and in that way you would have a different amount of tension. We put around six to eight pounds on all our beams with the exception of the back beam on the back, which, being at the extreme back, has the most tension. We have found that very satisfactory. I should like to hear from somebody who is using those beams.

MR. RYALS: We are using them, but there is always a heavy side. I have never seen one perfectly balanced yet.

MR. RILEY: If you do not weight them, when you shut that slasher off it will slip.

QUESTION: Do you do that when you first put it in the creel?

MR. RILEY: Yes, do it when we first put it in the creel, and right along. Of course, we extract them; we do not dry them.

A MEMBER: I should think that if you let it stay in the creel for a while before you start running it would drain some.

MR. RILEY: Yes, of course, but we try to get to running as soon as we can.

MR. RYALS: Is that just one time or occasionally?

MR. RILEY: No, we have to weight all those beams.

QUESTION: Is that because it is one-sided, or because the beam is heavy?

MR. RILEY: It is because the beam is not balanced. The naked beam itself is not balanced.

QUESTION: Couldn't you ballast it?

MR. RILEY: We did some of them, but it does not do any good.

MR. A: You put a weight on every beam?

MR. SHAW: Yes, and we put more weight on the back beam than on the front. When you stop your slasher that beam on the back will turn. If you do not weight it extra heavy, when you stop the slasher to doff or if you have a break it is going to turn.

MR. HARDEN: The information I am trying to get is this. We bought a set of ball bearings and put on our creel and found that in order to operate them we had to put a weight

on every beam, and we wound up with the same amount of stretch that we had before we put the ball bearings in. We could not see that it did any good. By actual measure, we wound up with the same amount of stretch that we had before we started, so we took the ball bearings off. So I am just wondering if you actually gain anything.

MR. SHAW: Don't you think that with a ball bearing on each beam, where the cylinder is resting in a bearing of its own, you would not have the same amount of friction as if you did not have the ball bearing where the cylinder comes in contact with the stand?

MR. HARDEN: It definitely reduces it, yes. That might be an advantage, but the sum total combination would be the same.

E. M. HOLT, Erwin Cotton Mills Co., Durham: I should like to say this, on the ball bearing thing. It sounds crazy to put something on to take friction off and then do something else to restore the friction. But you avoid jamming the creel, as some people do; and, another thing, it will save wear on your journal. I think the ball bearing is worth while to take the friction off, even if you do have to put some back on—particularly on dyed beams, which are heavy.

Sizing Beam-Dyed Warps

THE CHAIRMAN: Question No. 4 is on sizing beam-dyed warps and methods of control. I think we should like to hear from Mr. Shaw about that.

MR. SHAW: I should like to say that we size from 90 to 95 per cent of our beam-dyed warps. Every time that has been dyed and extracted we can not get over 40 per cent of the water out of that beam. We still have 60 per cent on the yarn. A pound of it, as it comes from the dye kiln, will absorb about a pound of water. I ran a test, and some of our beams have from 170 to 180 pounds of water to a beam. We run from three beams to a section to up as high as 16 or 17, so you can see from that we have quite a bit of water going into the size box. When the yarn is wet you can not get anchorage on that yarn. When you put that yarn on the squeeze rolls that water is going to be pressed out into the size box, and that gives you another problem. In drying that warp it is not going to heat as well, and you may overbake it. Then it will not run as well in the weave room. I guess we have as much trouble running wet warps as anybody else, and we have tried to correct them in three or four ways. We have a constant-level device that we are using in all our size boxes, and we have had to go to a heavier size on all our warps; we had to change our formula. Before that time we ran only about 150 pounds of size, and it got to the point in the weave room we had more bad warps than we knew what to do with. On the loom the yarn had a tendency to roll up in small balls, so we had to increase our size. Of course, that does not mean we are getting all that size on the yarn, because the yarn still has water in it and we are not getting penetration. As a rule, we try to dump after the fourth beam. You may say that is wasting a lot of size, but where we are spending a little money for size we are trying to keep a constant penetration of the size. I ran a test and averaged five per cent of size on a particular yarn. The size is not going to penetrate on the yarn, because the yarn is wet to begin with; and it is hard to anchor. Therefore I think on all wet warps it is well to leave seven or eight per cent of moisture in them.

MR. HARDEN: Do you thread them the same way?

MR. SHAW: Yes, sir, the same way. There is something

else we did; we use a 62-inch, 18-ounce wool blanket on these rolls. We started off by making a six-yard roll and cutting it and then putting another six yards on top of it. In this way we always have six yards on the squeeze roll. When we cut it off we put on the new blanket and then put the old blanket on top. You will have to run your slashers slower, but you will get a better sized warp, on the average.

Longer Quills

CHAIRMAN MARLEY: We will go on to our next subject, which is changing from a short quill to a long quill. The questions on that are: "How does this change affect filling and quill breakage," and "Can this change be made without major change in loom parts?" Has anybody here changed from a short quill to a long quill?

MR. SHAW: We did that, and we find it is very practical on our looms. We did not make any change at all except to extend the shuttle to take care of the $8\frac{3}{4}$ -inch bobbin rather than the eight-inch bobbin. We had to buy new shuttles. The shuttle eye has been moved up forward in the shuttle $\frac{1}{4}$ -inch, to allow for the $8\frac{3}{4}$ -inch bobbin. I would recommend it for anywhere from 4s to 30s yarn. The coarser the yarn, the better it runs. There is no major change other than extending the shuttle. The advantage of the longer bobbin is, of course, that you get about 15 per cent more yarn.

DAN M. CULP, Southern Shuttles Division, Steel Heddle Mfg. Co., Greenville, S. C.: There are very, very few changes to be made on the loom. As Mr. Shaw said, you have to extend the shuttle to accommodate the $8\frac{3}{4}$ -inch quill. Most of the mills are using a shorter picker head. The mills in our immediate vicinity, around Greenville, have increased the amount of yarn on the quill possibly 30 per cent. You get around 15 per cent more yarn when you go from an eight-inch quill to $8\frac{3}{4}$ -inch. We have made this shuttle for a little more than two years, but it has not been advertised at all until the last month. In other words, we wanted to make sure it is practicable to make this change. From the reports from the mills, they are very much pleased with it. The change that is necessary requires only a very short time to make. On fine numbers, say from 30s up, we do not recommend this change. However, one or two mills on yarn counts up to 40s are running this shuttle and are getting by with it. We have recently been wondering why we could not step up to a $9\frac{1}{2}$ -inch quill. We can make the shuttle follow that, but the yarn count would have to be pretty low; offhand, I would say around 15s. Otherwise you would have too much filling break. The mills that are running these shuttles are tickled to death at the amount of money they have saved, because they would have to buy new lay-ins, and I think they are around \$40 or \$50.

MR. B: I should like to ask a question of anyone who has installed these shuttles. What do you do on the transfer? On the transfer do you use the one-piece rod to pass up on the yarn and have to extend the rod on the transfer? I know quite a few of the mills still have the old type of transfer, and I wonder if you could add it all in one piece.

MR. HARDEN: I do not think you can. We tried that and worried quite a bit, and I think you have to have the new type of transfer. I believe that is the only way you can do it successfully.

CHAIRMAN MARLEY: Question No. 7 reads: "Reduction of warp breaks by variation of whip roll, take-up roll, har-

ness, etc." Have any of you any pet settings you want to tell us about? How about it, Mr. Green?

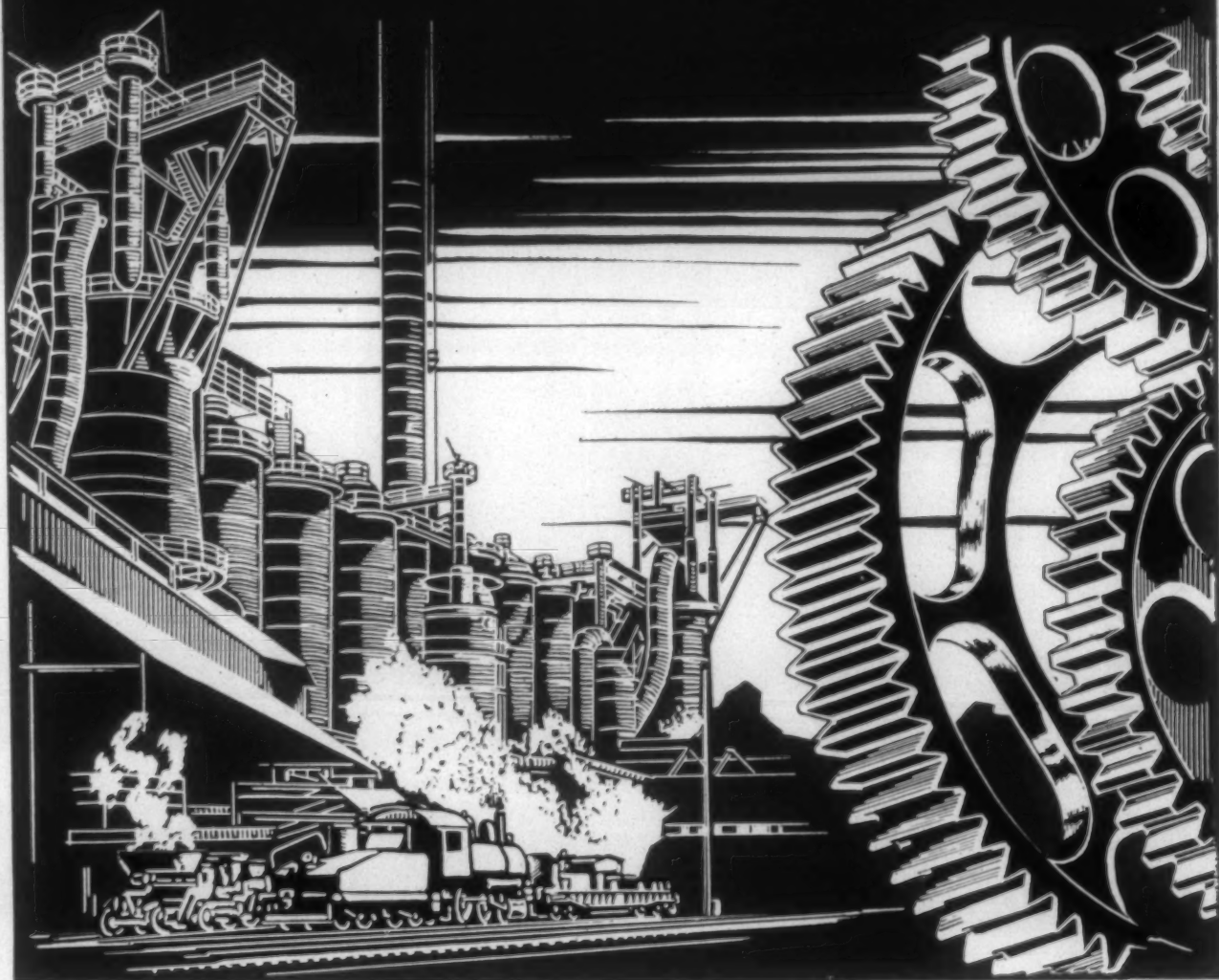
MR. GREEN: I think we all know that the easiest way to run yarn is to have a straight line from the whip roll. If we want to make a good piece of cloth we have to raise the cover. Every time you raise your whip roll you are fixing to put strain on the bottom shed, and it takes the strain from the top shed of your warp. That will always cause end breakage, in spite of tests or anything else. It is just a natural law that the more strain you put on yarn the more you break it. However, there is a good deal more to it than that. The timing of the harness, what position the harness is in when the reed strikes the cloth, has a good deal to do with it. Most of us believe that if the harness is level when the reed strikes the cloth you will have less breakage because you close the shed. If you bring your harness level two inches from the surface of the warp you have less strain than if you bring your harness level three inches from the shed of the cloth. Another thing; if you have what is called "baggy" cloth, if the cloth sags and jumps when the reed hits it, that becomes another point. It seems to me it is a question of timing your harnesses so you do not have baggy cloth and the cloth does not sag and jump when the reed hits it. The reed puts an extra strain on it, and it is a question of timing your harness so there will be as little bag as possible and then timing your picking cam so you do not put extra strain on your shuttle by dragging it through a closed shed.

CHAIRMAN MARLEY: I am sure all you weavers will agree with Mr. Green in what he has said about improper tension; and so forth. We now will get down to picking and carding. One question under this heading is about "Worn bearings on cards and their effect on quality." I know none of us question the effect that worn bearings have on quality, but the question is what can we do about it. Will some of you tell us what you are doing? We have with us today a representative of a concern that puts those out, Mr. Blakeney; and I ask him to tell us something about them.

C. R. BLAKENEY, manager, Industrial Engineering Co., Kershaw, S. C.: I will discuss lubricating and just leave out trade names. I shall confine my remarks to the cotton card or to the cotton card which has been converted to synthetics or to wool. Let's begin at the back end of the card, or the feed roll that we have now. Some of you who run cotton have disastrous results when you use synthetics. You find your journals worn and your feed rolls and even your bearings worn. Quite a few mills have to use different things to try to correct this. When you have cotton you do not notice the slippage of the lap under the feed roll so much as you do with synthetics. So, to change to synthetics or to improve it for cotton, you want to recondition those feed-roll settings to correct size. Don't change the size. Keep your bearings on standard and keep your journals on standard, whether you are using the self-lubricating or any other type of sleeve to go on the old ones. You recall that a popular machine manufacturer split his feed rolls. That lasted for quite some time, but when the journals started to go out it was another thing. Some of the mills copied this and split their worn journals. This served for temporary relief but gave disastrous results in the future that caused quite a bit of cost. So keep your bearings and your journals on standard sizes.

You can lubricate, leaving a reservoir in the center for storage space which can be used when a man has a tendency

TYCOL ENGINEERED LUBRICATION



cuts "down time" . . . increases production



**Boston • Charlotte, N. C.
Chicago • Detroit
Pittsburgh • Philadelphia
Tulsa**



Under all conditions the proved performance of Tycol lubricants more than meets their recommended service.

Rigidly controlled and tested during manufacture, Tycol oils and greases retain their uniformity within each classification — from the first drain to the last. This unvarying high quality accounts for Tycol's wide acceptance among operators interested in cut-

ting down time . . . top efficiency . . . increased production.

Whatever your lubrication need, there's a Tycol oil or grease *scientifically engineered* to afford greater economy . . . longer machine life for every piece, and type of equipment. Let Tide Water Associated help you select the best lubricant for your particular need. Write your nearest Tide Water Associated Office for full details.

LUBRICATION—"ENGINEERED TO FIT THE JOB"

to flood his machine. Now, you can put it in sludge, but have quite a bit of grease on the floor. If the journal is worn and the bearings worn they can move up and down. If they are standard sizes, both bearings and journals, you can put a No. 5 gauge between your feed plate and your roll. That is about standard for all of them, though they may vary a little from one manufacturer to another. You asked what to do about the journals. Some are boring them out and renecking them with a short journal provided by some manufacturer. When you start off with a self-lubricating journal you have a case-hardened journal that will last a long time.

Even though you fix your feed-roll journals and your journals, have your weight correct. I would not recommend increasing the weight at all. You have sufficient weight on it when the card is new. On some of the cards I have checked in my travels throughout the country I have found that I could put a No. 5 gauge under the end of the roll and put a No. 4 gauge in the middle. When you find this condition you find a bent feed plate. Some of our engineers on metals think that is due to metal fatigue and due to warping. Some of you may think it is crazy to say cast iron will warp, but it will in time. To remedy this condition, put a piece of flat iron under the center and screw it on. You can screw that up and prize the feed roll up in the center so it will gauge five all the way across. On a wide card you would probably have to use two of these flat iron pieces.

Some of you have checked this by giving the card hand a piece of chalk and letting him check the ends down on the card, instead of running a test, and have found that the cards with the greatest numbers of ends down have bad feed plates. If you have cards already installed you have no choice but to keep them, but if you buy new ones you can buy cards to suit your staple and your requirements. After checking that, go to the lick-in. Check your shroud. Some mills I know have used a wood bearing in there for insulation, but those people are very, very expert, and I would trust their judgment almost in preference to my own. You can put some other insulation in there. Take your disk off and take off 1/32 or 1/64 of an inch and put it back on, and it will continue to turn without any additional bearings. Some plants have equipped this with the self-lubricating bearing, which is unnecessary.

The Cost Factor

Your question reads "quality," but I think you should consider cost as well. Going over then to the flat comb, check your flat comb rocker shaft. If you examine the comb you will sometimes find that for from two or three to six inches on both ends all the teeth are worn off. If you observe the wire you find it is bent down and the damage is on the end. It is seldom you find this damaged in the middle unless something like a steel spike or something of that sort gets in the card from the picker.

If you give your card grinder a definite setting of 9/1000 or 10/1000 of an inch all the way around, you will often find your comb setting—one of the most important settings on the card so far as controlling the waste percentage and so forth is concerned—set at 12/1000. The man will slip it back. If you come back in two hours, say, and check it you will often find that.

You can make a new shaft and set it on the old sprocket on some makes of cards, but on ours you can not. So, it is best to build that up with metalizing and then turn it down.

On the flat drives you can reduce your bearings and eliminate that. On any card that comes new you find a fiber washer that comes on that. If you go back in six months and look at it, you do not find any washer. You can put a new one on; but, if you do, shape it up.

Going down, then, to the cylinder, at the present time they are placing inserts in the bronze housing. The chief trouble with that is getting those inserts into the bronze housing with a connected surface—that is, to have the same center you had before. If one bearing is on center and one off center you will have a hot bearing. So we are trying to get them to produce bearings solid, which is better than anything we have had up to the present time. The largest presses in use today in the United States are 500 tons. How are you going to get that much pressure? It cannot be done. But at the present time they are heating the material at the same time it is being pressed, so I think the presses will soon be able to handle that large bearing.

Going over to the doffers, you have a split bearing there, and we recommend one piece instead of two because you have to take the cap off and there is a possibility of letting one slip out, and when you go out to buy those doffer bearings you find that the large cap is very expensive. The doffer bearings should be bored on a precision machine or bored in pairs. If you bore them in pairs your tolerances will hold all around.

Getting down to the press calendar roll, you put on spring weighting. It is all right to put on spring weighting if you eliminate pressure. I see several plants have put on tremendous pressure to condense the sliver down very small, not realizing just what happens. The bearings wear.

Roll Coverings

CHAIRMAN MARLEY: We go on now to the next subject, No. 3: "Roll covering for top rolls on drawing and fly frames." What type of covering do you have for your drawing rolls? Has anybody tried any experiments to find what difference you get with leather and cork and synthetic?

WILLIAM A. J. PEACOCK, superintendent, Borden Mfg. Co., Goldsboro, N. C.: Someone, apparently, asked the question, and I was wondering if the one who asked it, if he is here, would not give us his thought on metallic rolls versus the common cots. For instance, is the common cot—the synthetic, cork, or what have you—as good for fine counts as it is for coarse? Or do you think it is as good, at all, as the metallic? Or what has been found? We use both for counts from 24s to 30s. We have used cork and are now using synthetics, and we think we get good results. We cannot use synthetics—or so far have been unable to use synthetics—on any yarns below, say 20s, for some reason. I do not know what it is; maybe the roll setting, or what have you; but we have a tremendous amount of lap-ups on our drawing frames on the lower numbers of yarn or the shorter staples of cotton. Whether we bring our roll settings close enough on the type of staple we have I do not know. I don't know whether it is that or whether it is just the material.

MR. BLAKENEY: If you do not keep the collars to normal size you have trouble. When you use the metallic top roll you are bothered with heat from the bearing, that causes lap-ups and things like that. You recall that the roll stands are not bent in on the old type of frames. They get out of line and twist around and cause the bearings to heat, and that in turn causes the synthetic to get hot, and that causes the trouble. If you are using a leather roll with varnish on



Here's the Most Costly Goose You Can Cook!

Here lies (in how many mills?) the golden goose of weave-room efficiency. How could it have been killed?

By failure to study, to teach, or to understand the new features of new C&K Looms.

By lack of appreciation of the importance of maintaining proper temperature and humidity.

By sloppy winding so yarn snarls coming off the bobbins and stops the loom.

By careless sizing of warp and conditioning of filling.
By inadequate maintenance in the weave room.

If *your* goose is in danger of "cooking," there's only one way to save it—by friendly and informal (but thorough) education of your entire organization. It will be worth the effort for modern C&K Looms do improve working conditions, earning power, the security of everyone's job, and insure the future prosperity of the mill.

Crompton & Knowles Loom Works

WORCESTER 1, MASSACHUSETTS, U. S. A.
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.

CROMPTON & KNOWLES JACQUARD
& SUPPLY CO., PAWTUCKET, R. I.



between Today's Knowledge...
and Tomorrow's Looms

it the varnish gets hot and it begins to lap up. Whether you do it in your own shop or send your rollers to a roller shop to be recovered, cement may be allowed to get on the journal, and you may put them back on without cleaning it off. Then when you put on lubricant it gets on that cement and you have a black, gummy substance. I have seen it in plants where they completely stopped. You know the trend is to cover the top rolls. Some are still holding to the leather and the synthetic. The manufacturers are not giving you much choice now.

CHAIRMAN MARLEY: We have recently made a test or two to find out a little bit about it. This is on five-roll drawing, by the way. I ran some of the same lap on cork rolls and on synthetic rolls. The synthetic roll was put on on Aug. 5 and has not been buffed since that time, and the cork roll was put on on Oct. 5 and has not been buffed since then. By a test on the Saco-Lowell sliver tester on ten yards from each one I got from one to two per cent more variation on the cork rolls than on the synthetic. I don't know whether that means anything at all.

L. C. ATKISSON, president, Textile Specialty Co., Greensboro, N. C.: The synthetic top roll on the drawing frame is not anything new. One firm has developed a means of putting a ball-bearing assembly with a sealed-in lubrication on the top roll. The idea of the ball bearing there is to overcome any drag that you might get with the friction bearing on the top roll. Looking back on it, you will find you get a more even sliver. You do not have the damaged fibers there, and the breaking strength will be increased by that and also by the more even sliver. Someone was speaking a moment ago of the synthetic cot, or leather. That could be damaged by the drag roll, whereas if the top rolls start at the same time and run with it it will be easier on the cot and also on the leather. This bearing does away with the lubrication; it does away with oily fly and keeps oil off your cots. This will also work with the metallic top roll.

The Nylon Bolster

THE CHAIRMAN: The first subject under spinning is "New types of bolsters and travelers." I think that was meant to refer to the new nylon bolster.

S. P. V. DESMOND, Watson & Desmond, Charlotte, N. C.: This is the new nylon bolster. Because of the lack of co-efficient of friction in nylon the bolster will run cooler, and there is no apparent wear on the bolster or the spindle. If you had a letter opener or something like that you could run it down in here and see how smooth it is, whereas on a new cast-iron bolster you can feel the roughness. I have heard mill men say that they would just as soon have this as a ball-bearing spindle for the power saving. These have run as long as nine weeks without oiling.

EDWARD C. HORNER, general overseer of carding and spinning, Oxford (N. C.) Cotton Mills: What is the life of that bolster?

MR. DESMOND: We do not know. Nylon is coming into use more and more in a lot of fields. I have never seen a worn-out nylon bolster. I have seen some burned-out ones. There is one complication when you are introducing something new. I might say I have seen more crazy minds in the textile industry than in anything else I know of. I asked a friend of mine how he liked the nylon bolster. He said: "They burned out. But don't worry; I told the boys not to oil them until they gave trouble, and they ran 11 weeks and then burned out."

Power Saving

CHAIRMAN MARLEY: I understood there is some saving in power.

MR. DESMOND: We had this tested, and the report was that on 9,000 R. P. M. there was a power saving of 11 per cent and that it increased to 13 per cent on 11,000 R. P. M. There is no contamination; by that I mean that sludge does not form, as it does with a cast-iron bolster. With a cast-iron bolster it all settles down at the bottom and prevents lubrication. There is an interesting thing about this; if you put a spindle in one of these and just spin it in your hand it will continue to spin, whereas if you put a spindle in a cast-iron bolster and spin it, it will turn two or three times and then stop. That shows the lack of friction. This nylon is coming more and more into bearings of various descriptions.

CHAIRMAN MARLEY: You mentioned nine weeks there without oiling. How much oiling would it require?

MR. DESMOND: I would hesitate to say. Anything I might say would be a guess, Mr. Marley, because, while we were playing with this during the war I would say for 4½ years now, we could not get enough nylon really to conduct the tests—that is, to get it out in the mills. It is in the mills that you have to determine whether a thing will actually work.

THE CHAIRMAN: Do you claim there is any saving over the ball-bearing type of spindle?

MR. DESMOND: There, again, it is too new to say. What we are suggesting to any mill is that they take a few of them and watch them for power saving and also watch them for wear and for clean oil. After four years there was no apparent wear, and the oil stays clean.

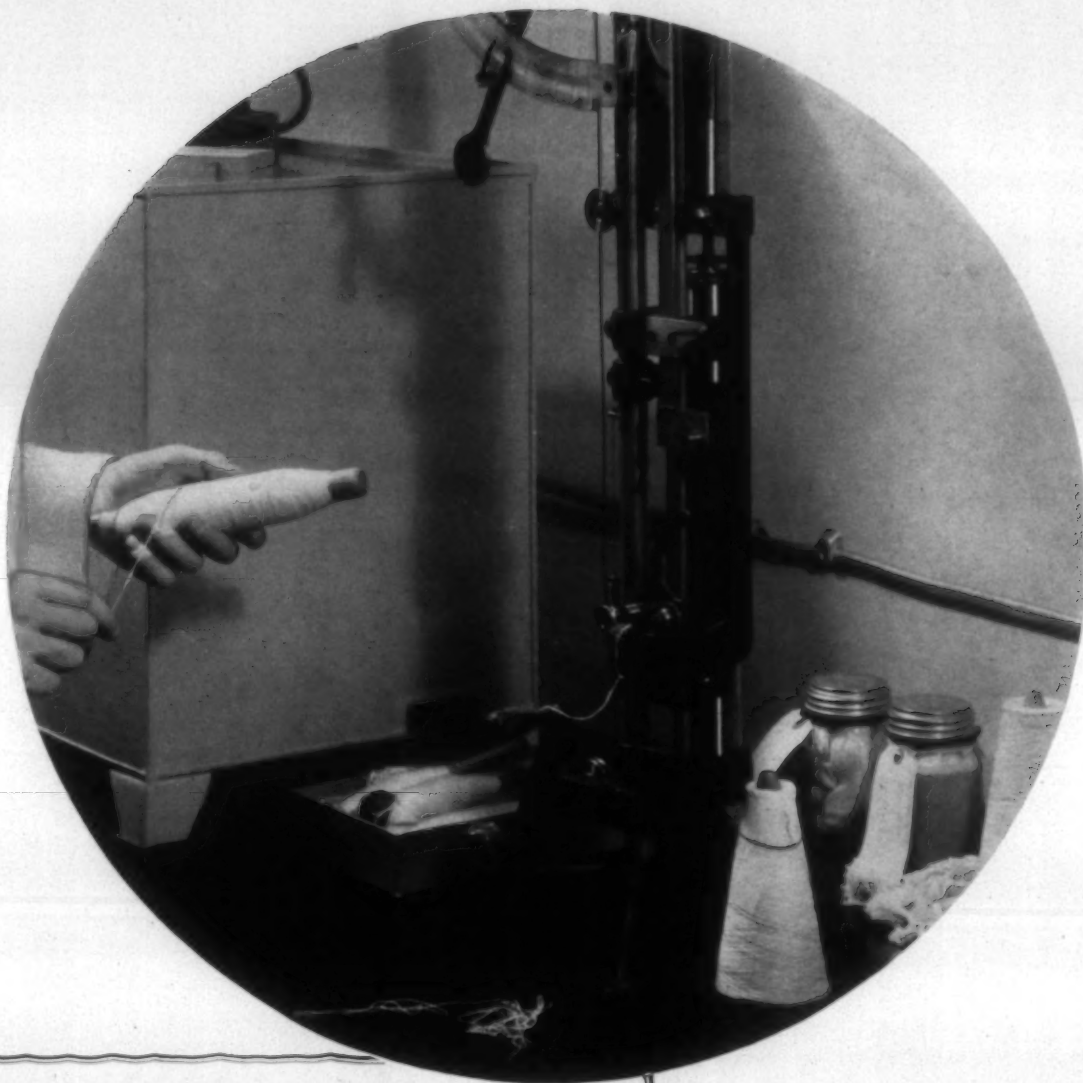
THE CHAIRMAN: While you are up, Mr. Desmond, would you like to give us something on the ball-bearing top rolls?

MR. DESMOND: Yes, Sir. We make them both for the roving frames and for the spinning frames. This is an assembly unit; by that I mean it is not the shell type; you cannot pull it apart. The lubrication is sealed in there. It is buffed like a solid roll. We cover it with any covering that you want, that you specify. We claim it eliminates wear at several points. Here again we are up against it in telling you how long it will last. We do not know. We know it will last five or six years. The bearing people who sell us the bearings tell us that on a slow-running roll like this it could last eight to ten years. That remains to be seen.

I told you that this could not be taken apart, but two or three curious folks in cotton mills found a way to take them apart and immediately filled them with a lubricant. There again I said to let them run and see what takes place. They are rather easily taken apart. This roll is equipped with a bearing here and a bearing there, so that the stress is distributed between the bearings and you do not have the cantilever effect that you have with the old type.

CHAIRMAN MARLEY: We do have one frame of them on spinning, and they have been running since June. We have found how to take them apart but have not tried to lubricate them. We have had 14 replacements; we have them covered with cork, and of course things happen to the cork. Otherwise they are still going strong.

MR. DESMOND: I was in one mill where I was shown something that was very interesting. The operator deliberately broke an end down and balled it up, twisted it up and made a hard end out of it, (Continued on Page 70)



TESTING IS OUR JOB

In our textile laboratory at Greenville, S. C., nothing is taken for granted. Every suggestion for the use of our products is thoroughly tested by our technical staff. Conscientious research of this character has proven profitable to many textile manufacturers who have brought their problems to us.

CORN PRODUCTS SALES CO.

Greenville, S. C. • Greensboro, N. C.
Spartanburg, S. C. • Birmingham, Ala.
Atlanta, Ga.



Dyeing and Finishing

Synthetic Resins And Their Application

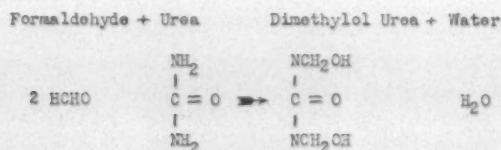
By FRANCIS TRIPP, B.S., M.S., Ch.E., Head of Chemistry Department, New Bedford (Mass.) Textile Institute

TO actually specify who had the original thought that certain synthetic resins could add valuable properties to cotton and rayon fabrics would be an impossible thing to do. However, about 1932 the textile finishing industry started hearing stories about the application of synthetic resins on fabrics and the resultant properties that the fabrics attained having been finished with certain resins.

Some of the earliest work was done by Rossiter, Bowen, Bener and Fikentscher. It was Patent No. 2,121,006, June 21, 1938, which disclosed that Bener had done considerable research work with urea formaldehyde resins to produce shrinkproof fabrics. Rossiter Patent No. 1,926,063, Sept. 12, 1933, showed that starch and urea formaldehyde resin could be combined to produce a washable finish in a fabric. Bowen's Patent 2,098,083, Nov. 2, 1937, discloses thin boiling starch and resin as a finish. Fikentscher's Patent 2,067,706, Jan. 12, 1937, shows that he produced a water insoluble finish on fabrics by combining starch and a ctylate resin. Tootal Broadhurst and Lee, an English concern, obtained the first patent on the use of urea formaldehyde resin to produce crease and crush resistance in textile fabrics. Lippert of Bancroft Finishing Co. in Delaware has a patent which discloses the use of urea formaldehyde resin to produce a washable glazed chintz finish.

Urea Formaldehyde Resin

Although urea formaldehyde resin was the first resin that was found which gave fabrics remarkable resistance against shrinkage during washing, other synthetic resins were found later that produced this same effect but the urea formaldehyde type of resin is still being used in large quantities due to the fact that it is the most economical resin to use. This resin is produced by the reaction "condensation" of formaldehyde and urea under certain conditions that produce dimethylol urea. The chemical reaction is:



A practical formula for making this resin is as follows: To 405 parts of 37 per cent of formaldehyde solution add sufficient .1 normal sodium hydroxide to make the solution very slightly alkaline. Add to this in one batch 150 parts by weight of commercial urea. The temperature falls during the dissolving stage, so it may be heated by steam or hot water to 40-50° C. At this stage the heat of the reaction in large batches is sufficient to raise the temperature further,

but it should be held by water cooling between 40-50° C. for one hour. Then let stand eight to ten hours at room temperature, dilute with hot water to a 20 per cent concentration and cool to room temperature. This product as a 20 per cent solution is stable for at least two weeks at room temperature.

Some finishing plants buy urea and formaldehyde and make their own resins but the majority of plants buy the resin all made up. About every well known textile chemical manufacturer sells this resin either in the syrup, paste, or dry form. The syrup type of resin is a so-called higher polymer than the paste or solid type and is used where a stiffer feel to the finished cloth is required.

Finishing With Urea Formaldehyde Resin

Urea formaldehyde resin is used to finish glazed chintz, spun rayons, velvets, pile fabrics, plain woven fabrics of cotton or rayon, also rayon and cotton marquisette curtain material. The paste type resin such as Aerotex 450 cream (American Cyanamid Co.) or Rhomite 610 (Rohm & Haas Co.) or Resipon D (Arkansas Co.) the dry powder form of resin can be used in quite high strengths without imparting any stiffness to the treated fabric; hence they are ideal to use since a fabric so treated is practically shrinkproof during laundering and also does not wrinkle. Great quantities of urea formaldehyde resin are used to finish spun rayon fabrics and it is fair to state that this resin did more to promote the use of spun rayon fabrics in suitings, dresses and sport shirts than any other single factor. It made the fabric hold its shape during wearing and during washing. Urea formaldehyde resin was also found to make velvets crush resistant, fix starch on a fabric to make it less water soluble, make a durable glaze surface on certain type fabrics.

As the resin comes from the manufacturer it is in the water soluble state. The required amount of resin is dissolved in a small volume of boiling water. After the resin is dissolved cold water is added to the solution to bring the volume up to nearly the desired number of gallons. A catalytic agent must now be added to the solution. The catalyst is usually diammonium phosphate or some mild acid. This catalyst is dissolved in a small amount of cold water and added to the resin solution after which the whole solution is made to the desired volume by the addition of cold water. The fabric to be treated is then immersed in this solution, squeezed and brought to required dimensions on the tenter frame. It is very important that in the passage of the cloth into the clips of the tenter that there is no excessive tension exerted in the warpwise direction of the fabric and the fabric should also be stretched out to the

rapidogens

for printing bright, fast colors
on cotton, rayon and linen at low cost

- bright clear colors
- wide color range
- excellent fastness to washing
- very good fastness to light
- readily soluble
- quick ageing
- easily applied
- available in powder and solution form
- can be printed alongside indanthrenes and algosols
- combine quality with economy

we will be glad to furnish formulas and technical data

GENERAL DYESTUFF CORPORATION
435 HUDSON STREET, NEW YORK 14, NEW YORK
BOSTON • CHARLOTTE • CHICAGO • PHILADELPHIA • PROVIDENCE • SAN FRANCISCO



BECCO
Continuous
BLEACHING
assures
SHORTER
TIME
BETTER
QUALITY
EXPERT
SERVICE

ESTABLISHED 1903

THE MILLVILLE MANUFACTURING CO.
MANUFACTURERS AND FINISHERS OF COTTON GOODS
COTTON MILL AND BLEACHERY OFFICES
MILLVILLE, NEW JERSEY

INCORPORATED 1906

RICHARD D. SEED, PRESIDENT
OSCAR WOOD, VICE-PRES. AND MGR.
EDWARD A. HANLEY, TREASURER

MILLVILLE PLANT
OSCAR W. WOOD, MGR. VICE-PRES.
JOHN H. HANLEY, VICE-PRES.

September 10, 1947

Mr. Charles A. Buerk, President
Buffalo Electro-Chemical Co., Inc.
Buffalo, New York

Dear Mr. Buerk:

Your continuous bleaching unit, recently installed in our plant, has been in operation for practically two months. While we were pleased with the performance of this equipment from the minute that it went into operation, we felt it advisable to wait a reasonable time before writing you concerning its execution.

The principal advantage of the Becco process in our plant is the drastic reduction in the time required for us to bleach cloth. Your equipment has reduced the time for bleaching from two days to about two-to-three hours. We are running this range on various fabrics with speeds varying from 100 to 300 yards per minute.

The line of fabrics which we process require quality bleaching. This requirement is a necessity, whether the goods are being prepared for the dyeing of our Batfast style, or being completely bleached as in the case of our various towelings and our Red Star diaper line.

Your technical advisors were of invaluable aid, not only in supervising the erection of this equipment, but through their knowledge and assistance in putting it into operation.

We thank you for your splendid cooperation and interest in launching the Becco unit successfully.

Very truly yours,

THE MILLVILLE MANUFACTURING COMPANY

Richard D. Seed
Richard D. Seed
Bleachery Superintendent

RDS/jm

- We appreciate such an endorsement from those who insist upon fine bleaching. Profit from the experience of other manufacturers in obtaining economical operation and quality products.
- Let Becco technical advisors consult with you on methods and installations to give you best results.

BECCO SALES CORPORATION
AGENTS FOR BUFFALO ELECTRO-CHEMICAL COMPANY, INC.
BUFFALO 7, NEW YORK

New York

Boston

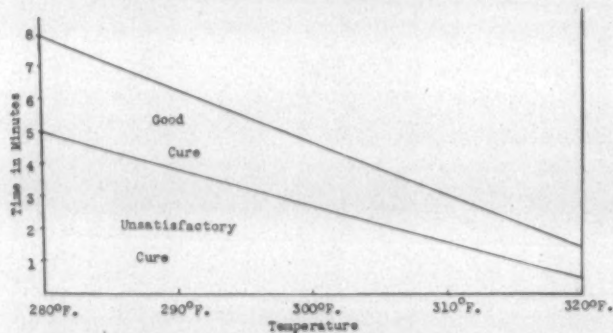
Philadelphia

Chicago

Charlotte

required width before any drying begins. Resin can show great merit in regard to keeping a fabric from shrinking during laundering but a certain amount of good common sense has to be used by the finisher when he applies resin. It is not possible to stretch a fabric excessively and likewise frame it to a width greater than the "gray" or original width and expect the resin to "anchor" the fibers of the fabric so that the fabric has maximum shrinkproofness. However, by jointly integrating the mechanical aspects of the finishing range with the resin chemical solution, excellent results can be obtained. Usually a fabric is finished two to three inches narrower than the cloth as received from the weaving mill.

After the fabric has reached the point in the tenter frame where it is stretched to the desired width then the hot air for drying is blown onto it and the drying proceeds as the cloth travels along the frame. The tenter frame is "housed in" and the air ducts blow the hot air on the surface of the cloth from above and below as it passes through the frame. The temperature inside the tenter frame "housing" or shed is from 280° to 350° F. On very lightweight fabrics not only is drying accomplished on the tenter frame but also a partial baking or "curing" of the resin. This "curing" of the resin is the key to the whole urea formaldehyde resin finishing operation. Without a good cure the resin does not play its part and shows this by yielding poor results. Curing is the term used by chemists that means subjecting the resin-treated cloth to elevated temperatures—280° and up. Urea formaldehyde resin is known as a thermo-setting resin which means that it sets up to an insoluble compound by the action of heat. The chart shown below shows the time and temperature required in order to cure the resin.



Generally the curing of the resin takes place immediately after the fabric leaves the tenter frame. It enters a heated compartment known as a "curing box" where it travels vertically up and down through the box while ducts direct a constant blast of hot air against the surfaces of the cloth.

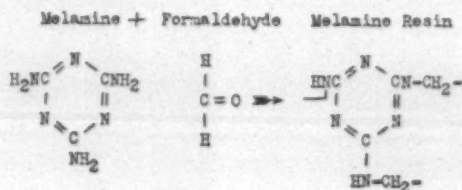
The chemical reaction that occurs and corresponds to the term "curing" is known as a condensation. As the baking proceeds the diammonium phosphate "catalyst" previously mentioned as being mixed with the resin at the start changes from alkaline and now becomes acid. The small molecules of urea formaldehyde in the presence of the "acid catalyst" and high heat start to build themselves into larger molecules by this condensation (joining together). The large molecules are insoluble in water, hence the fabric is now incorporated with an insoluble resin. The fabric is cured. After the fabric comes out of the curing box it is either wound on rolls or plaited into a box where it proceeds to the inspection department in the case of lightweight fabrics and to the slack washers if heavy fabrics have been treated.

It is very important that spun rayon fabrics and all other

fabrics heavier than marquisette be washed after curing. The washing removes any uncured resin that will cause objectionable odors if allowed to remain in the cloth. For washing of the fabric a machine that has the minimum of tension is used. A dye box or "beck" is suitable, also the Rodney Hunt slack washer. The cloth is given a hot water wash at 120° F. with two pounds of Nacconal NR added for every 100 gallons of water. After washing the fabric is squeezed through rubber nip rolls to remove excess water and then dried on the tenter frame.

Melamine Formaldehyde

Melamine formaldehyde resin is another type of the so-called thermo or heat setting resins that requires curing much as the urea formaldehyde type. This resin also produces shrinkproofing of fabrics and crush resistance also. In the case of finishing fabrics to make them crush and wrinkle proof much stronger solutions of the resins have to be used in comparison to the amounts used where only resistance against shrinkage is wanted. These differences will all be shown in my next article when I will show finishing formulas and discuss apparatus used to produce each type of finish. Melamine formaldehyde is manufactured by both American Cyanamid Co. and Monsanto Chemical Co. There are several different types of resin, depending on whether they are methylated or not. The general chemical formula of this type of resin is:



The melamine formaldehyde resins require a catalyst (diammonium phosphate) just as does the urea formaldehyde type. The amount of catalyst used is generally figured to be four per cent of the weight of resin used. The general procedure of application of melamine resins is about the same as urea formaldehyde. The melamine resin comes in the form of a syrup and therefore it is not necessary to dissolve this resin in boiling water. It dissolves very readily in warm water 100° F. and after the catalyst is added it is ready to be used.

Less melamine resin is used to produce the same effects as urea formaldehyde resin, but as melamine resin costs nearly three times more than urea formaldehyde, this is economically as it should be.

In finishing fabrics for resistance against shrinkage the fabric must have a minimum of six per cent resin deposited within its fibers and the fibers do not begin to show any anti-crease properties until the concentration of resin held by them has reached ten per cent. When the concentration of resin in a fabric is six per cent by weight there is hardly any difference in feel from the untreated piece if the dimethylol urea is used. However, when ten per cent and over is deposited in the fabric the "hand" of the cloth becomes more resilient and heavier. There has always been controversy as to when shrinkproofing ends and anti-creasing begins but for general purposes it is assumed that a fabric does not begin to show crush and anti-crease properties until it holds ten or more per cent urea formaldehyde resin. (To be continued.)

Research Is Theme Of A.A.T.C.C. Convention

THE widespread importance attached to the work of the American Association of Textile Chemists & Colorists by everyone in the textile industry was amply demonstrated by the large attendance at the 26th annual convention of the group held Oct. 23-25 at Chicago, Ill. J. Robert Bonnar of General Dyestuff Corp. was appointed acting chairman of the research committee and revealed that a total of 63,944 tests were run during the past year in support of research projects under the auspices of the group, being accomplished in 19,340 hours of contributed time by 217 members of 11 active research sub-committees. As chairman of the research committee Mr. Bonnar succeeds Dr. Louis A. Olney, who had been chairman of the committee since the founding of the organization 26 years ago.

Seven technical sessions comprised the second day of the event with 25 papers being presented. Abstracts of a number of these papers will be published in later issues of this magazine, when space permits.

The Northern New England Section won first prize in the annual contest for the best research paper to be presented by a section of the association. The winning paper was entitled "An Electrolytic Method for Stripping Colored Wool." The Philadelphia paper, awarded second place, discussed "The Application of Chemical Controls to Acid Dyeing," and the third place New York entry considered "Dyeing and Fastness Characteristics of Aqueous Chlorinated Wool."



The Olney Medal for outstanding achievement in the field of textile chemistry was awarded to Prof. Edward R. Schwarz, for the last ten years in charge of the textile division of the Massachusetts Institute of Technology. Professor Schwarz, left, is known for his contributions in the field of textile microscopy and textile testing and is author of numerous scientific and technical papers

on textile research. He is a former vice-president of the Textile Research Institute. In accepting the award, Professor Schwarz emphasized that to insure results from research it was essential to know why the work was being performed, the results sought, and how these results were going to be measured. He warned that there was a real danger of too much accumulation of data for its own sake, too much misuse and misinterpretation of data, even too much correlation of data and plotting of curves when it was not justifiable. He suggested that the A. A. T. C. C. put its brains to work interpreting the results of data now available.

Henry F. Hermann, president of the association, in an address on the final day of the event, outlined the fundamental objectives of the A. A. T. C. C. as follows: (1) to promote increase of knowledge of the application of dyes and chemicals on the part of the textile industry; (2) to conduct and sponsor research in practical problems on chemical processes and materials or importance to the textile industry; (3) to establish and maintain quality standards and correlating testing methods whereby the industry

is enabled to regulate itself from within on a practical basis; (4) to provide for its members channels for the free exchange of ideas and professional experiences for the benefit of the industry; (5) to serve as a lasting educational medium for the technical personnel of the industry by keeping its members informed on new developments. The lack of such knowledge would seriously hamper those who are not so situated so as to have ready access to other sources for such information; and (6) to make possible a number of publications dedicated to purposes whereby the proceedings and other leading technical articles are made available to all its members.

AN ELECTROLYTIC METHOD FOR STRIPPING COLOR FROM DYED WOOL—First Prize

Presented by NORTHERN NEW ENGLAND SECTION

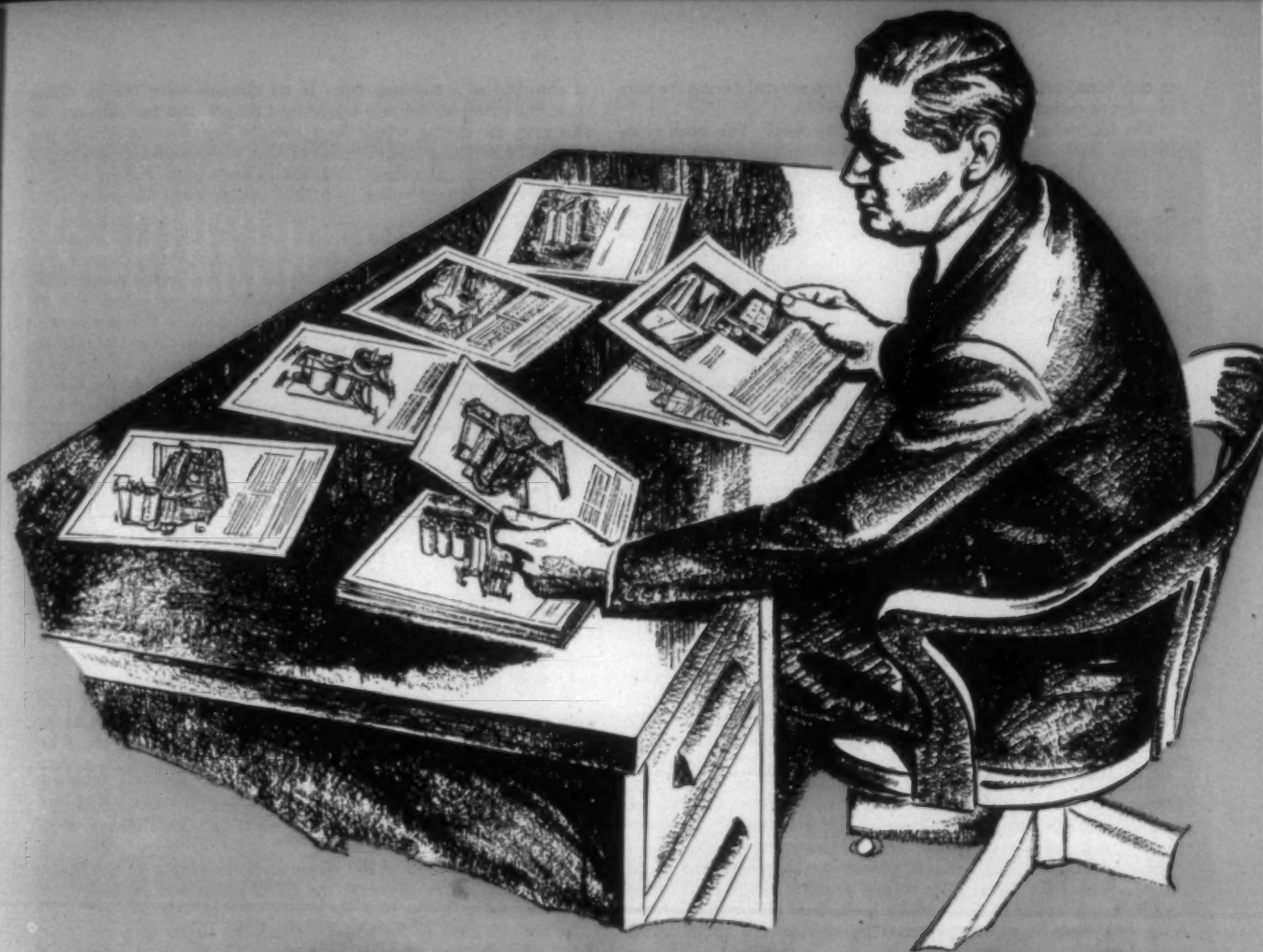
COMMERCIALLY AVAILABLE STRIPPING agents are few in number and fall into two classifications—sulfoxylates and titanium compounds. The two main disadvantages of the sulfoxylates are: (1) they will not strip most vat and chrome colors; (2) they leave the goods harsh and boardy. A third disadvantage is the objectionable odor of sulfoxylate stripped wool. Apparently sulfoxylates are insufficiently powerful reducing agents to destroy the complex coordination compounds of dyestuff-chromium-wool which probably are formed when wool is chrome dyed. In the case of vat colors, undoubtedly the sulfoxylates merely reduce them to their leuco forms which reoxidize when they are removed from the stripping bath.

Titanous sulfate strips satisfactorily and also offers the opportunity of being reduced by electrolytic means during the course of a strip. Such a procedure offers three distinct advantages: (1) a constant level of reducing power is maintained throughout the duration of the strip. (2) continuous reduction of the solution by electrolysis throughout the duration of the strip keeps the concentration of titanic sulfate and titanium dioxide at a minimum. (3) the reagent may be continuously and repeatedly used, thus appreciably reducing cost.

Investigation of the literature and examination of the periodic table show that chromium and vanadium are similar to titanium in that they too are multivalent elements. Their ions in the lower valence states are among the most powerful water-soluble reducing agents known. Thus, electrolytically prepared and regenerated titanous, chromous, or vanadous sulfate may be used with equal success as stripping agents for wool.

The laboratory electrolytic cell employed for preparing and using titanous, chromous or vanadous sulfate is one of classical electrochemical design. The apparatus comprises an outer glass beaker. Within the beaker is a porous pot open at its upper end. A metal sheet anode in the form of a cylinder open at both ends is disposed within the outer glass beaker and on the outside of the porous pot. A metal cathode is disposed inside the porous pot closely adjacent to its cylindrical wall. This cathode is in the form of an open-ended cylinder and is perforated to allow the stripping liquor to circulate freely. The cathode and anode are respectively connected to a suitable source of direct current.

A solution of vanadium sulfate, prepared by dissolving vanadium pentoxide in dilute sulfuric acid, is poured into the cathode pot portion of the cell. Diffusion through the porous pot fills the anode portion. A direct current potential is imposed across the electrodes whereupon reduction occurs at the cathode, thus producing vanadous sulfate. As reduction proceeds, the clear yellow vanadic sulfate is progressively reduced through the blue vanadium valence stage to the lavender valence state. Reduction is accomplished in about one hour, after which anywhere from one to ten batches of stock may be successively stripped. The cell, of course, is continuously operated



What Do You Get Besides Machines?

Whether you are re-equipping your present mill or building a new one, you will want to know what you will get besides machines when you place your order.

At Butterworth you will get all the advantages of 127 years experience in the wet end of textile finishing—an experience unique in the Textile Industry.

Butterworth engineers will:

- (1) Study your production problems and recommend the proper equipment

for better, faster, more economic production.

- (2) Estimate the total cost to you of modern machines, installed and running.
- (3) Design, build and install a single machine or a complete range for bleaching, boiling-out, drying, carding and dyeing.

And there is only one responsibility for the success of your new equipment. For full details, write us today.

Butterworth

H. W. BUTTERWORTH & SONS COMPANY, Philadelphia 25, Pa.

TEXTILE FINISHING MACHINERY COMPANY DIVISION, Providence, R. I. - 1211 Johnston Bldg., Charlotte, N. C. - W. J. Westaway Co., Hamilton, Ont. ARGENTINA: Storer & Cia., Buenos Aires - AUSTRALIA: Noel P. Hunt & Co., Ltd., Melbourne - BELGIAN CONGO: Paul Pflieger & Co. - BOLIVIA: Schneiders & Cia., Ltda., La Paz - BRAZIL: Cia. Industria e Comercio, Glossop, Sao Paulo e Rio de Janeiro - CHILE: Schneider & Cia., Ltda., Santiago - COLOMBIA: C. Halaby & Co., Medellin - CUBA: Thos. F. Turrill, Havana - ECUADOR: Richard O. Custer, S. A., Quito - FRANCE: Georges Campin, Le Perreux, Seine; Res Campin, Sceaux, Seine - MEXICO: I. Slobotsky, Mexico, D. F. - MIDDLE EAST: Arlind Corporation - NORWAY: Dr. Ing. Otto Falkenberg, Oslo - PERU: Custer-Thommen, Lima - SOUTH AFRICA: Texmaco, Johannesburg - SWEDEN: Elof Hansson, Goteborg - URUGUAY: Storer & Cia., Ltda., Montevideo - VENEZUELA: Storer & Cia., Caracas

so that vanadous sulfate is continuously regenerated during the strip in order to maintain constant reducing power.

The following procedure is used to strip wool: The stock is introduced into the cathode chamber and stirred to insure uniform stripping. Easily stripped dyes, such as acid colors, require five to 20 minutes. Chrome colors may take from 20 to 90 minutes. Indigo and vats usually require from 60 to 90 minutes. Dyestuffs which do not strip in 90 minutes will not strip by this process. The only dye so far encountered which will not strip at all is Alizarin Black WR. For large scale commercial operation, the batch pot-type cell is inconvenient and impractical. Therefore it was advisable to design a unit wherein the electrolytic cell producing the stripping agent is entirely separated from the chamber where the wool is stripped. The stripping agent is made in an entirely different type of cell, is continuously pumped to the stripping chamber, and is then returned to the cell where the oxidized vanadous, chromous or titanous ions are again reduced.

The apparatus consists of a "storage battery" plate-separator type of electrolytic cell, a pump to force the stripping solution from the cell to the stripping chamber, a reservoir for storing spent stripping agent which has been pumped from the stripping chamber and which will be returned to the cathode portions of the cell for regeneration, a reservoir for storing new unreduced stripping agent (in the oxidized condition) which is piped into the anodes and which eventually diffuses into the cathode area where it, too, is reduced. The wool is kept entirely separated from the cell, filters being provided to prevent any fiber from contaminating the cell.

The advantages of this electrolytic process are: (1) Dyestuffs impossible or difficult to strip by present methods are successfully stripped. (2) The "hand" of wool so stripped is substantially as soft and resilient as unstripped wool. (3) Strength losses for woolen fabrics so stripped are under eight per cent for 20 minutes, under ten per cent for 40 minutes, and under 24 per cent for 90 minutes. Increases in elongation up to 12 per cent for 20 minutes, 32 per cent for 40 minutes and 18 per cent for 90 minutes are obtained. (4) No objectionable residual odor is noted. (5) Stripping is conducted below the boil. (6) No pre-scouring is necessary. (7) A constant level of reducing power is maintained throughout the duration of the strip. (8) Within practical limits the reagent may be continuously and repeatedly used, thus maintaining a low cost. (9) Samples so stripped may be satisfactorily redyed with light shades.

THE APPLICATION OF CHEMICAL CONTROLS TO ACID DYEING—Second Prize

Presented by PHILADELPHIA SECTION

MANY INVESTIGATIONS have been carried on with the purpose of providing means of controlling dyeing operations. The principal means have been thermometric and chemical. Thermometric controls have been quite generally applied and studies in this field show the advantages of commencing the dyeing operation at temperature above 180° F. Therefore, temperature as a variable factor was not considered in this work. The chemical methods of control are generally dependent upon the control of the pH of the dyebath. However, pH is not the only factor in dye absorption. Practically all previous work has been done from an equilibrium standpoint. Little or no work has been done, however, on studying control of the speed of dyeing continuously from the start to the end of the operation. What is happening during the dyeing operation is more important fundamentally than the exhaustion of the bath at the end. The use of chemical controls to regulate the rate of dyeing becomes very significant and is the ultimate purpose of this investigation.

For the experiments, standard weight skeins of 2/20-50s grade wool were prepared. Dyeings were made in baths containing distilled water in a liquid ratio 30 to one. In the experiments involving rates of dyeing, a closed dyebath was employed. The pH measurements were made using a glass electrode and dyebath concentrations were measured spectrophotometrically.

Frequently in wool dyeing as much as 50 per cent of the dye is absorbed in the first two or three minutes. This is the reason the dyer must resort either to lower temperature at the start or to intermittent additions of acid during the dyeing process. Numerous dyers when asked how they would like to control the rate of dyeing, replied that the ideal rate would be a uniform one, where the dye

is absorbed at a constant rate. If 60 minutes were the operating time, for example, the rate would be 1.67 per cent per minute. At this rate, the dyeing would be a straight line starting at 100 per cent and extending toward zero per cent at 60 minutes, if the dye were completely absorbed. This arbitrary rate is chosen in this particular study; any other rate could be used and the same principles applied.

To see how this would operate, an easily controllable dyestuff, Azo Rhodine 6B was taken and a predetermined dyeing curve based on 100 per cent absorption was made. As the dyeing progressed, acid was added to keep the dyeing near the predetermined line. It was found that the equalizing dyes can be made to follow the predetermined line very accurately. The milling dye curve can also be made to follow the predetermined line very accurately after a time and is never far away from it. On the other hand, the dyeing curves at constant pH are far apart from the predetermined line and this is accentuated in the rate curves.

Batch unevenness is generally recognized as being due to irregular absorption during some part of the dyeing cycle. If this irregular absorption is eliminated, it opens the possibility of adjusting the slope of the straight line to a more rapid rate of dyeing, and obtaining good dyeings within a shorter time.

The noteworthy feature is that the pH curve of the equalizing dyes follows approximately a straight line as does that of the milling dye as soon as the dyeing curve reaches the predetermined line. Conversely, the pH curve should be made to follow approximately a straight line in order to obtain a uniform rate of dyeing. Thus the dyeing can be checked or controlled by pH instruments to insure uniformity of dyeing.

In the preceding experiments, numerous small additions of acid were necessary to keep the dyeings at a uniform rate. It would be much more convenient and practical if the proper acidity could be developed in the bath. Ammonium sulfate and ammonium acetate have been used near the neutral point where pH values close to 7.0 are needed. Their range is, however, very limited. To expand this range an investigation of numerous acid, and acid-forming compounds was undertaken.

Chloral hydrate, one of the compounds showing a great change in pH was taken to illustrate the effect of its use in dyeing an equalizing color. Using four per cent of chloral hydrate, the dyeing curve remains close to the predetermined line up to 50 per cent of the exhaustion, then exhausts more slowly up to a final exhaustion of 70 per cent. This is a long range to be attempted by one chemical and a stronger acid or acid forming compound would be added at 50 per cent exhaustion. Using four per cent malonamide with a milling type dye, the dyeing curve follows the predetermined line up to 57 per cent exhaustion. From then on another compound would be added to continue the dyeing along the straight line as before. These acid-forming compounds can be adjusted in their effect by changing the percentage used and various ones used to fit the type of dye. These two compounds have been chosen to illustrate the point and are not necessarily the most economical. The retarding effect of various acid-forming compounds vary considerably, and in some cases is quite noteworthy. The ones with the greatest retarding effect bring the dyeing curves reasonably close to the predetermined line, even at pH 6.6. It is within the realm of possibility that products now being synthesized may permit a completely uniform rate from the start.

EFFECT OF AQUEOUS CHLORINATION ON DYEING AND FASTNESS PROPERTIES OF WOOL—Third Prize

Presented by NEW YORK SECTION

INVESTIGATION OF FIVE DIFFERENT ANTI-FELTING TREATMENTS involving the aqueous chlorination of wool indicate that the fastness to washing of the dyeings is generally decreased by the treatments, the effect being less with those dyes which possess greater fastness on the untreated wool. No significant effect of the treatments on the light fastness of the dyes was observed. While the rate of dyeing is considerably influenced by these treatments, the final dyeing shows little difference in the case of acid, milling, metallized, chrome and solubilized vat dyes, whereas in some cases marked differences were found with vat dyes.

Five pieces of flannel were individually treated by five representative methods of wet chlorination. A sixth piece identified as Fabric A was left untreated and used for comparison. Fabric B was



... mused the Soap Sleuth, fingering his violin. "I had just returned from helping another chap with his scouring problems, when suddenly ...



"At first, I thought it might be a case of the wrong kind of soap. But when I saw *Armour's Texscour* being used for their scouring of wool piece goods, I was convinced the manager knew his soaps. You see, **TEXSCOUR**, the red oil base flake soap with a low titer of 8-12° C., gives quick, lasting suds. **TEXSCOUR** cuts grease, knocks out soil and foreign material—rinses fast and completely, gets wool clean and white.



"The door of my 31st Street Laboratory burst open! A frantic mill manager rushed in muttering about the felting and shrinking of his wool piece goods! I set out for clues.



"Anyway, one check of the scouring bowls, and I didn't need my trusty glass to spot the trouble. *The liquor temperature was much too high!* Good scouring must be done at *low* temperatures to keep wool from felting and shrinking. That manager now gets a *better, cleaner* scour using **TEXSCOUR** at the right temperatures. Incidentally, I've helped with quite a few textile problems. A telephone call is all that's needed to get me on the job."

Armour
INDUSTRIAL
Soap

Armour and Company, 1355 W. 31st., Chicago 9, Ill.

treated in accordance with U. S. P. 2,144,824 of G. Weigand, that is, 20 yards of fabric were chlorinated in a bath of the following composition:

Water	135 liters
Sodium Hypochlorite (9.8 per cent active chlorine)	1 liter
Sulfuric Acid (98 per cent)	720 grams
Glycin	45 grams

The fabric was wetted out in the solution containing the water, sulfuric acid and glycin at room temperature. Then the sodium hypochlorite solution, diluted with water 1:1, was added to the bath over a period of 30 minutes. After this the fabric was run in the bath for another 30 minutes. It was rinsed for 15 minutes in water, then dechlorinated with 45 grams of sodium bisulphite, again rinsed for ten minutes and allowed to remain in the rinse water overnight. The fabric was then hydroextracted and dried. The treatment was repeated to insure complete chlorination. The chlorinated flannel was neutralized with three per cent sodium carbonate, based on wool weight.

Fabric C was treated following the procedure of B. P. 569,730. The procedure comprises of treating the fabric in a cold bath of ten per cent calcium chloride, three per cent available chlorine as sodium hypochlorite and two per cent potassium permanganate for approximately 40 minutes and then clearing the permanganate with six per cent sodium bisulfite and five per cent sulfuric acid.

Fabric D was treated by a modified acid chlorination method developed at the Botany Mills of Passaic, N. J. Fabric E was treated according to the acid chlorination method developed by the Alrose Chemical Co. A typical formula used to treat 100 kilo of wool in a bath ratio of 25:1 follows (bath ratio, 25:1).

Alrochlor BH (30 per cent sodium sulfamate)	36 Kilo
Sodium Hypochlorite	5 Kilo
	(available chlorine)
Wetting Agent	1/2 Kilo
Formaldehyde	5 Kilo
Sulfuric Acid	18 1/2 Kilo

Fabric F was treated according to an alkaline chlorination method developed by the Alrose Chemical Co. After a pretreatment the fabric was chlorinated with three per cent active chlorine, rinsed, treated with an antichlor agent and neutralized. This was followed by a bleach in one volume peroxide for one hour at room temperature.

Dyeing tests with acid, milling, metallized, chrome, and solubilized vat dyes showed some of the treatments increased the rate of dyeing, and other treatments decreased the rate of dyeing. However, in most instances the treatments had little effect on the final dyeings. In view of this consistency of visual color value and shade, the dyer may use the same formula interchangeably on chlorinated and unchlorinated material, giving due consideration to the changes in the rates of exhaust. It should be noted, however, that some of the more sensitive dyes in these classes show distinct shade changes on some of the chlorinated materials.

Vat dyes do not show the same consistency of shade and strength. Since the chlorinated material in many cases dyes heavier than the unchlorinated, the dyer must use extreme caution when transferring his formulas. In the case of the vat dyes, the greatest increase in color yield is shown on those fabrics (B and E) which showed the highest alkali solubility values. Wash tests showed that those colors

which are not fast on unchlorinated wool are much less fast on chlorinated wool and, therefore, are unsatisfactory. On the other hand, those colors that are fast on untreated material show only a slight loss, if any, on material chlorinated by either an acid or an alkaline chlorination.

Differences in light fastness of the chlorinated and unchlorinated dyed wool were slight and followed no particular pattern as to dye class of treatment. In the case of the solubilized vat dyes the interesting observation was made that while the untreated material had faded slightly yellowish and duller after 160 hours in the Fade-O-meter, all the chlorinated fabrics had become brighter and some even appeared slightly stronger in shade than before exposure.

EFFECT OF UREA ON CELLULOSIC TEXTILES

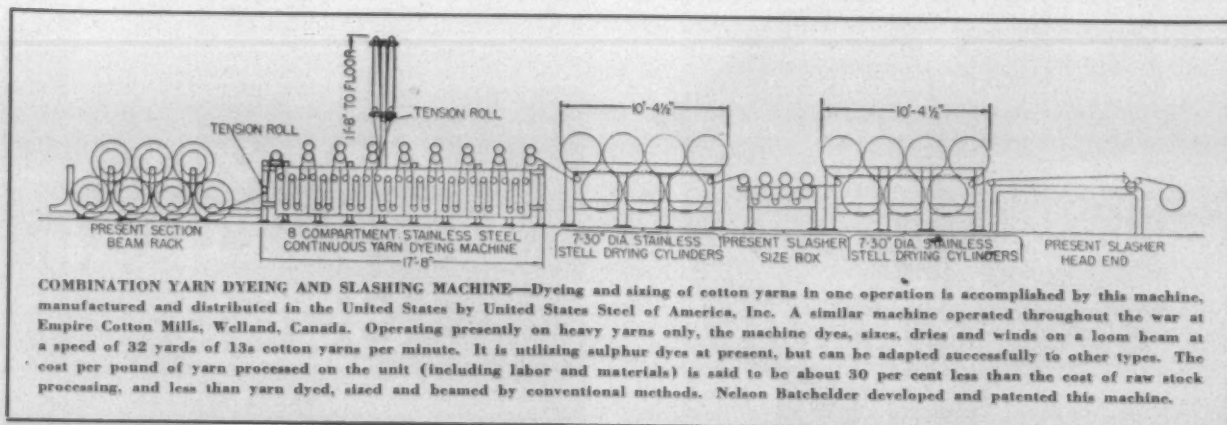
Presented by SOUTH CENTRAL SECTION

FLAME RESISTANT COTTON can be obtained by treating cotton with urea and phosphoric acid. In the process urea lowers the surface tension and probably acts as a swelling agent, thus permitting the penetration of the mixture. Even dilute aqueous solutions of phosphoric acid are detrimental to cellulose, but evidently a complex is formed with urea which minimizes the deleterious action. Wash-resistant flameproofness was not obtained when scoured skeins of cotton yarns were treated with mixtures of aqueous solutions of urea and phosphoric acid at 100° C.

In these experiments, scoured skeins of cotton yarn were immersed for two minutes at room temperature in aqueous solutions containing varying proportions of urea and phosphoric acid. The wet skeins were wrung by hand until the wet pickup was approximately 50 per cent. The yarn was then heated for various intervals in a Dietert dryer and the flame resistance and strength were observed before and after washing in a one per cent solution of Triton 720.

Additional work at higher temperatures using what appeared to be the optimum molar ratio of urea to phosphoric acid; viz., 3:1, showed that permanent flame resistance could be secured at 120° C. only after heating the skeins for 40 minutes. Similar results were obtained after 20 minutes at 140° C. or ten minutes at 160° C. However, the strength of the treated yarn was an inverse function of time and temperature. There was little, if any, increase in weight of the washed treated yarn and the hand was essentially equivalent to that of the original material. This indicates that the flame resistance secured is the result of chemical action, and is not due to loading the yarn with flame resistant materials. Pertinent data for the experiments at elevated temperatures are given in Table I.

The effect of urea and other additives on the mercerization of cotton was investigated using a modification of the technique developed by Landolt. A stainless steel bob weighing 1.0 g. was tied to the end of a 50 cm. length of scoured 40/2 combed peeler cotton yarn which was suspended in a 50 ml. burette containing aqueous sodium hydroxide and the contraction of the yarn was observed. The addition of urea caused an increase in the contraction of cotton yarn in presence of ten and 20° Be sodium hydroxide. There was little effect at 30° Be and the contraction in this concentration of caustic was less than in more dilute solutions. The maximum effect was exerted by small amounts of urea in 20 and 25° Be caustic solutions. Samples of yarn mercerized in presence of urea were knitted and dyed. The resultant knitted goods were at least as good





A hard problem...made easy!

Carry a clam shell up in the air—drop it on a rock—and there's a hard problem solved for a hungry sea-gull!

Once you have the answer—it's easy. But sometimes you can spend a lot of time and effort hunting for the solution to a new and out-of-the-ordinary problem.

In your de-sizing operations there have probably been many times when you've had difficult and unusual problems to face—the "problem lots" that can be a headache to the bleacher and dyer. Diastafor brand de-sizing agents can make your de-sizing easier by eliminating problem lots. For among the various types of Diastafor is one to suit every de-sizing condition—it's easy to find the one that will best meet a particular need.

Because Diastafor will work well in wide ranges

of temperature and pH it has great flexibility of use. You can depend on it under widely varying conditions to help give you a fine finish and trouble-free operation, whether you are working with cottons, rayons or mixed goods.

We like to invite bleachers and dyers to prove to themselves the results that Diastafor gives by trying it on the hardest lots they have to dye. Ease of use, economy and fine performance have made Diastafor de-sizing agents the leaders for 39 years.

Our sales and technical staffs are always at your service. Just drop us a line if we can be of assistance or if you would like our representative to call on you. Address Standard Brands Incorporated, *Diastafor Department*, 595 Madison Ave., New York 22, New York.

DIASTAFOR

A TRADE MARK OF STANDARD BRANDS INCORPORATED

as those from regular mercerized yarn in respect to luster, strength, dye affinity, and uniformity.

Mantell has studied the effect of the addition of urea to solutions of cellulose in sodium zincate or sodium stannate and has found that the viscosity of these solutions is decreased markedly by the addition of urea. Additional work has corroborated Mantell's observations, but considerable difficulty was experienced in securing a non-thixotropic solution of cellulose in aqueous sodium zincate. Urea had little effect on the viscosity of freshly prepared solutions, but it markedly reduced the viscosity and minimized thixotropy in aged solutions.

A 2.5 per cent cellulose solution aged two days which gave Stormer viscosity values ranging from 40 to 124 seconds using a 500 g. load at 21.5° C. gave values ranging from 19 to 22 seconds when 7 g. urea was added, and values hanging from 13 to 14 seconds with an additional 4 g. However, after five days, at 28-33° C., the same solution in the absence of urea had decreased in viscosity to a range of 14 to 16 seconds at 20.5° C. The Stormer viscosity values using a 200 g. load at 22° C. ranged from 55 to 62 seconds in the absence of urea, but consistent checks were obtained as soon as 2 g. urea was added to 100 ml. of the cellulose solution. There was a marked decrease in viscosity with each addition of urea until a total of 10 g. urea had been added. The decrease in viscosity was less for the next additional 10 g. and little further decrease was noted after a total of 20 g. had been added.

The cellulose-zincate solution for these experiments was prepared by adding 1.5 g. zinc oxide to 12 g. sodium hydroxide in 10 ml. water at 60° C. The solution was cooled, 2.5 g. viscose rayon was added and water was added with stirring to make a total volume of 100 ml. The viscosities were determined using a Stormer viscometer with a 200 or 500 g. load.

Urea is also effective in reducing the viscosity of aqueous solutions of carboxymethyl cellulose, methyl cellulose, hydroxyethyl cellulose, cellulose xanthate and solutions of cellulose in trimethyl benzyl ammonium hydroxide. The viscosities of solutions of cellulose in zinc chloride were also reduced by the addition of urea, but the results were not consistent. No significant reduction in viscosity was noted when urea was added to aqueous solutions of polyvinyl alcohol, starch or cellulose in ammoniacal copper hydroxide.

TABLE I
Effect of Time and Temperature on Flame Resistance of Cotton Yarn Treated with Urea (3)-Phosphoric Acid (1)

Temp. (° C.)	Time (min.)	Curing Conditions		Flame Resistance		
		Strength (%)	After Hand Wash	A	1	2
120	10	72		1.5	..	..
	20	65		1.5	—	..
	30	54		2.5	..	..
	40	52		4.0	2.5	0
140	10	72		4.0	..	..
	20	65		8.5	2.5	0
	30	63		8.5	4.0	0
	40	54		8.5	..	..
160	10	66		7.0	2.5	1.5
	20	56		8.5	2.5	2.5
	30	39		7.0	..	..
	40	42		5.5	..	..

A=hand wash.

1, 2=number of washings in mechanical washer.

NOTE: Flame resistance rated as ten when treated yarn charred without burning and as 0 when it burned as readily as untreated yarn.

STUDIES IN SOILING AND DETERGENCY

Presented by PIEDMONT SECTION

TO DATE NO INSTRUMENT, METHOD OR SOIL has been accepted as a standard for detergency evaluation. There has been much work on instrumentation and method. However, a minimum of effort has been expended in the consideration of a standard soil or soils. Therefore the prime purpose of this investigation was the development and study of a standard soil and its relationship to certain aspects of detergency evaluation.

Standard soils now in common usage all have some outstanding fault which in a majority of cases outweighs the virtues of a particular solution of approximately 50 soils studied, one was selected

for further experimentation. This soil has the following compositions:

2.0% Oildag
0.25% Alkanol WXN
8.0% 3F Fibre Spray Oil
89.75% Stoddard Solvent

Samples of bleached, but not finished 64 x 64 sheeting, over-edges and desized, and measuring approximately 4½ x 4½ inches were prepared by padding the Standard Soil Solution onto the fabric samples by means of a shallow stainless steel tray and two rubber rolls having approximately 117 pounds pressure across the nip. Experiments made to determine the effect of sample area on soil removal indicated that sample sizes are not too critical, but individual samples should always come as close to a standard area as possible for best results.

A study of the influence of length of wash on soil removal showed that under the conditions of this part of the investigation, equilibrium is reached in the vicinity of 30 minutes as regards soil removal, whereas with the brightness increased and oil remaining, the peak seems to have been reached somewhere under 15 minutes.

The general trend of thought is that increasing temperatures will yield greater soil removal. Contrary to this, a study indicated that the reverse might be true. These findings show the necessity of evaluating a particular detergent at the temperature at which it is to be used in plant practice.

The general trend of thought is that increasing temperatures will yield greater soil removal. Contrary to this, a study indicated that the reverse might be true. These findings show the necessity of evaluating a particular detergent at the temperature at which it is to be used in plant practice.

The experiments have shown that the type of soil, sample area, length of wash, washing temperature and type of fabric have a pronounced effect on removal of soil from fabric by any detergent. Therefore the textile chemist should apply the temperature, time, water conditions, fabric, etc., a detergent is expected to meet in the mill in his method of evaluation.

The application of any standard soil to fabrics for the purpose of detergency evaluation requires the development of technique and a certain amount of skill if a fair degree of accuracy is to be maintained. A goodly number of textile concerns have small wash wheels or Launder-O-Meters, but no facilities for the proper treatment of fabric with so-called standard soils. For this reason it is suggested that the A. A. T. C. C. make available to its membership, as well as other interested parties, standard soiled fabric for the purpose of detergent evaluation. This could be extended from a single soil on one type of fabric, to a single soil on several types of fabrics or a series of soils on a series of fabrics. In addition, it may be advisable to offer a service whereby the reflectivity of the samples, before and after laundering is measured by the research department of the association for a nominal fee.

WEATHER PROTECTIVE TREATMENTS FOR COTTON DUCK

Presented by SOUTHEASTERN SECTION

USE OF COTTON in the manufacture of awnings, tents and tarpaulins in 1939 was estimated at 129,720 bales. This coupled with the additional amounts of cotton used in tobacco shade cloth, seed bed covers, etc., constitutes a sizeable market where the position of cotton could be strengthened if its resistance to deterioration by weather were increased. It was desired in the present investigation (1) to formulate a treatment capable of protecting cotton fabric against weather without adverse effect on the "hand" or finish of the cloth; (2) to test the various experimental formulations by exposure to actual weather; and (3) to collect data on the behavior of the finishes under artificial conditions of exposure that would be of value in the study of accelerated ageing of textiles.

A plainly woven Army duck made of unsized yarns and weighing 10.6 ounces per square yard was selected as a fabric representative of the type used in out-of-door service and as not too heavy to show significant tendering of unprotected samples in the available time.

The finishes chosen fall into four groups: clear resins alone; resin-bound pigments; pigments precipitated *in situ*; and pigments *in situ* aftertreated with the clear resins. Methyl methacrylate resin was used in order to find out whether or not it imposed a physical barrier against biological attack. Oil-modified alkyd resin was selected for test because of its ready availability and its common use

For enhanced lustre—

—use



LUMERCINE

In all fabric, warp and skein mercerizing

LUMERCINE causes instantaneous wetting out, even penetration of the caustic when used in concentrated caustic solutions. The result is a smooth round surface and an enhanced lustre. Lumercine quickly penetrates tightly woven and heavy weight fabrics, leaving the fibres open and swelled for uniform dyeing and level shades. Because it dissolves immediately and completely in mercerizing baths, Lumercine makes no scum, does not cause sludge in caustic recovery systems.

Lumercine may also be used in alkaline detergent baths, aux-

iliary scour and penetrant for cotton in pressure or open kier boils. It helps to remove Pectins. When used on knitted goods previous to bleaching, it is effective in removing graphite and lubricants. For rayon, it acts as a scouring assist when used with caustic alkalis in a box or a jig. Samples of Lumercine and further information supplied on request.



JACQUES WOLF & CO.
Chemicals **PASSAIC, N. J.**

OTHER PLANTS: CARLSTADT, N. J. • LOS ANGELES, CALIF.
WAREHOUSES: Providence, R. I., Philadelphia, Pa., Utica, N. Y., Chicago, Ill., Greenville, S. C., Chattanooga, Knoxville, Tenn.

in industry as a binder for pigments. Urea-formaldehyde was chosen because in some previous work on its use as a pigment binder the incidental observation was made that this resin rendered the fabric more resistant to breakdown by radiation from a carbon arc.

The pigments used in the present investigation were selected either because of known light-protecting or fungicidal properties or because knowledge was desired of the protective action of colored pigments which would be compatible with the color of dyed fabrics.

Wherever possible, the treatments were applied from water solution or emulsion rather than from organic solvents. In all cases the concentrations of solids were adjusted to give two per cent take-up of pigments and five per cent take-up of resin on the dry weight of the cloth. All finishes were applied on a two-bowl laboratory paddler. A stainless steel laboratory jig was used where necessary for developing and washing finishes. Samples were dried to original width with heated air. For the curing of resin finishes a skein dryer was adapted to the purpose. Exposures were made for 24 weeks in several locations from March 1 until Aug. 15, both under controlled and uncontrolled conditions.

The resin-bound pigments appeared to offer better protection than treatments in the other groups, as evidence, for example, by the use of urea-formaldehyde and lead chromate, either alone or in combination, on bleached duck. Treated with urea-formaldehyde alone, the sample suffered a strength loss of 25 per cent after exposure; with lead chromate alone, precipitated *in situ*, it lost 19 per cent; with lead chromate *in situ* after-treated with urea-formaldehyde it lost six per cent; and with lead chromate applied as a pigment bound with urea-formaldehyde resin, the sample suffered no loss at all in breaking strength. The untreated gray and bleached controls lost 42 and 43 per cent, respectively, as averages from values obtained from samples at the four stations.

The different clear resins alone applied to the Army duck exhibited different effects, with urea-formaldehyde offering considerably more protection against total weathering than the other two. The oil-modified alkyd resin and the methyl methacrylate resin gave practically no protection by themselves. Lead chromate and chromium oxide, which of themselves have excellent light-screening properties, when incorporated with resins showed the greatest protective effect. Monastral Fast Blue, not only protected the sample well but permitted it to retain much of its color and appearance. Pigments selected for their fungicidal properties are at the bottom of the list—a fact which apparently bears out the observation of Barghorn that the more effective fungicides seem to catalyze photochemical degradation.

Comparison of the deterioration of samples exposed in the carbon arc with those exposed for 24 weeks to actual weather, showed no exact parallel relationship. However, those samples which failed badly in the arc exposures were also least resistant to weathering. Thus it may be that the carbon arc weathering machine, as modified for these experiments, will prove helpful in rating the ultraviolet-screening properties of experimental fabric finishes.

APPLICATION OF CARBOXY METHYL CELLULOSE TO THE WET PROCESSING OF TEXTILES

Presented by MIDWEST SECTION

THE PURPOSE OF THIS PAPER is to discuss the value of sodium carboxy methyl cellulose, or C.M.C., as an aid in the wet-processing of textiles, and particularly as a detergent aid. C.M.C. is formed by the reaction of monochloroacetic acid and sodium cellulose. The product of each manufacturer has a characteristic substitution ratio which is determined by the uniformity of substitution and the manufacturing conditions. The viscosity type is determined by the chain length of the cellulose molecule. This is controlled in the manufacturing process during the ageing of the sodium cellulose. C.M.C. is usually made in four viscosity types: low, medium, high and extra high. The absolute viscosity for each of these types varies among manufacturers. In working with C.M.C. it is necessary to state the specifications of the C.M.C. and carefully define the conditions under which it is used.

Industrially the most important salt of carboxy methyl cellulose is the sodium salt, commonly called C.M.C. The properties of the potassium salt are similar to C.M.C. The ammonium salt has the interesting property of liberating ammonia around 130-140° C. and forming the free acid. The alkali metal salts are in general soluble.

Alkaline earth salts show a somewhat reduced solubility. Amphoteric metals and quaternary ammonium compounds form insoluble precipitates. Most of the insoluble salts are soluble in dilute sodium or ammonium hydroxides. Films of C.M.C. are rendered insoluble by treatment with the appropriate salt solutions. The aluminum salt is frequently suggested. The free acid of C.M.C. is practically insoluble in water and is readily precipitated by acidifying C.M.C. solutions to a pH of 2.5. These interesting properties suggest many applications.

This brief characterization of C.M.C. only partially suggests its usefulness. It has been recommended as a hydrophylic colloid, a stabilizer for suspensions or an emulsifier for oil-in-water emulsions. It has been found useful as an adhesive, as a powerful thickening agent and for film forming applications. Of special importance in the textile field are the following possible uses: (1) a detergent aid; (2) a thickener or viscosity stabilizer for printing pastes; (3) a sizing agent for warp sizing or for finishing purposes (it may be used as the free acid, insolubilized metal salt or as C.M.C.); (4) as a modifier for corn starch and other sizes; (5) a thickener and viscosity regulator for latex and resin impregnating solutions; (6) a retardant for vat dyeing; (7) a lubricant for textile fibers; (8) a stabilizing agent and viscosity regulator for oil-in-water dispersions.

Preliminary study of C.M.C. produced frequent suggestions for its use as a detergent aid. As no actual investigation of this use for C.M.C. was found in the literature it was decided to investigate this phase experimentally. The experimental work was formulated to yield data of practical as well as general value. No attempt was made to determine optimum combinations of builder and detergent, but rather to indicate the trends that prevail. The investigation was initiated to determine the effectiveness of C.M.C. in combination with a variety of synthetic surface active agents as well as with a low titered soap and to compare it with other materials which have been proposed for the same purpose.

The method of laboratory testing comprised washing swatches of standard soiled cotton cloth in an Atlas Launder-O-Meter and determining the detergent action obtained. Cotton was used because it is one of the most difficult fibers to clean and because an easily reproducible soiled fabric can be prepared with it. Detergents were selected to represent most of the types of industrial importance in the detergency field.

The results obtained from a comparison of the ten detergents with zero, one and ten per cent C.M.C. based on the active detergent indicate that C.M.C. shows a high degree of efficiency in improving the detergent properties of synthetic detergents and soap. The mode of action is to improve the soil suspending properties of the system rather than to promote actual soil removal ability. In this respect it is superior to various other thickening agents proposed for the same purpose. The effort produced is more pronounced with the synthetics than with soap because of the inherently poorer suspending properties of the former.

The only detergent which showed no effect whatever from the C.M.C. was a quaternary ammonium compound, which formed a precipitate with C.M.C. even in the presence of 0.25 per cent sodium carbonate. This compound is also the least effective detergent by itself and is very closely related to the cationic softeners used on textiles because of their durability towards washing.

Each type of detergent operation presents temperature, fiber, mechanical action and water conditions which are different. The conditions used in this work were selected to most closely approximate usual textile scouring practice. The magnitude of the building action of C.M.C. must be determined, however, for each specific type of detergent system.

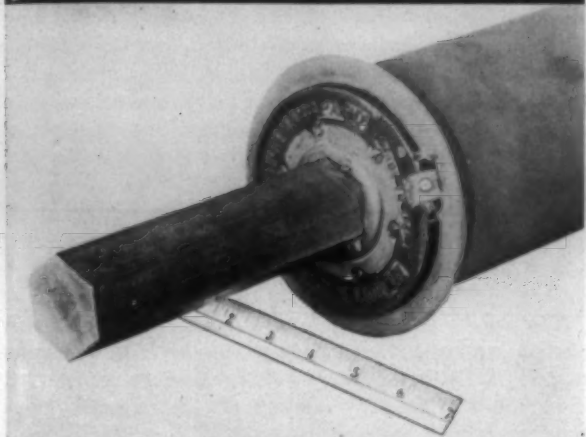
From a practical standpoint the cost of C.M.C. must be at least compensated by the possible reductions in scouring time, the quantity of detergent used or the enhanced appearance of the fabric. These factors must be worked out in each application.

THE EFFECT OF ELECTRICAL CHARGE IN THE APPLICATION OF DYESTUFFS

Presented by RHODE ISLAND SECTION

AT THE OUTSET, this study was undertaken in an effort to determine whether the dyeing properties of soluble colors with a charged dye ion, or of vat pigment particles bearing an electrical charge would be affected by applying electrical charge. As the work progressed, the results indicated that the chemical effects produced by the electric current were the most (Continued on Page 84)

Mount Hope SEALED END EXPANDER

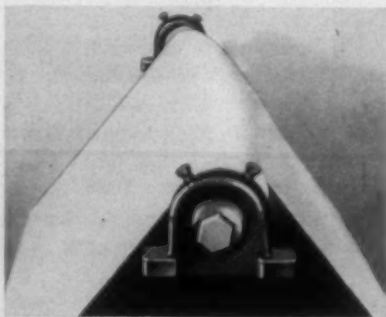


Protected for "Wet" Operations

Here is the latest improvement in the Mount Hope "Free-Wheeling" Expander. It can now be furnished with end seals for handling wet fabrics in wet or steamy surroundings. When conditions are such that liquid will run into the ends of the expander, it is desirable to seal the ends so that the inner parts will be protected. Mount Hope Sealed End Expanders are so protected. The original free turning quality of the expander is not affected by the seal.

The slight extra cost of expander end seals is soon paid for by the increased life of the expander — tripled under wet conditions. If desired, stainless steel axle with bronze brackets and bronze clamps can be used to further reduce the corrosion when used for wet service.

Mount Hope Expanders are used for spreading and for eliminating wrinkles in all fabrics, from rayon marquisette to tire cord, plastic film and paper.



MOUNT HOPE MACHINERY CO.
42 Adams St., Taunton, Mass.

Representatives — John H. Andresen, Inc., 138 Grand St., Paterson, N. J.; Ingalls Engineering Co., 1214 Union Trust Bldg., Providence, R. I.; Slaughter Machinery Co., Charlotte 1, N. C.; Sidney Springer, 316 East Commercial St., Los Angeles 12, Cal.; W. J. Westaway Co., Ltd., Hamilton and Montreal, Canada.

Complete *Your*
finishing picture
with



"Virginia" liquid Sulfur Dioxide (99.98+ % pure) is an outstanding antichlor in the finishing of cotton goods. It is easy to store, to handle, and to use. Our development of a practical, semi-automatic method for regulating concentrations of "Virginia" SO_2 in the sour box has resulted in widespread adoption of this versatile chemical. Shipped in 150-pound cylinders. We shall be glad to send you a complete description of the "Virginia" Method.

VIRGINIA SMELTING COMPANY, West Norfolk, Virginia.

Established 1898.

SULFUR DIOXIDE • SODIUM HYDROSULPHITE

VIRGINIA
Chemicals

WEST NORFOLK • NEW YORK • BOSTON • DETROIT

textile bulletin

Published Semi-Monthly by

CLARK PUBLISHING COMPANY

P. O. Box 1225 - CHARLOTTE, 1, N. C. - Telephone 3-3173

Offices and Plant: 218 West Morehead Street

David Clark	-	-	-	President and Editor
Junius M. Smith	-	-	-	Vice-President and Business Manager
James T. McAden	-	-	-	Editorial Director
Andrew Hewitt	-	-	-	Associate Editor
Ervin Dickson	-	-	-	Assistant Editor
R. J. Shinn	-	-	-	Field Representative
F. R. Carey	-	-	-	Vice-President and Eastern Manager

(P. O. Box 133 - Providence, R. I. - Telephone Williams 3957)

One year payable in advance	-	-	-	-	\$1.50
Other countries in Postal Union	-	-	-	-	3.00
Single copies	-	-	-	-	.10



Textile Bulletin is a member of the Audit Bureau of Circulations and the Associated Business Papers, Inc.



From Both Sides Of His Mouth

President Truman asked Congress to approve the imposition of drastic government controls upon the American economy in order to prove to the "weak of faith" among the nations that a free economy is preferable to an economy hampered by government regulations.

Also, from the other side of his mouth, he urged Congress to place again upon the American people many of the controls which existed during the emergency of the war.

Only recently Mr. Truman had said that wage and price controls "savor of the police state" and that he did not contemplate a return to such devices, but in his message to Congress he advocated wage and price controls.

He bid the American people to resign themselves to what he now describes as inevitable.

He told the people that this problem can be solved only by our granting more power to government, by submitting to bureaucratic directives.

In asking us to accept his power-program for the duration of this emergency, he conveniently ignored the fact that history has been, and always will be, an endless chain of emergencies which the state will always be eager to solve by assuming more and more power over the lives of its citizens.

Only a short time ago Mr. Truman endorsed the findings of his Council of Economic Advisers, which derided the charge that foreign aid exports in the post-war years had created scarcities largely responsible for inflation at home.

Now he says that only by again submitting to wartime rationing and price controls can we halt or avoid inflation caused by those exports.

Only a week or so ago the people had been told by the Harriman Committee on Foreign Aid that exports to needy European countries in 1948 would actually be less than this year's. We had no rationing and price control this year. Yet with less exports, and with production at the

same or possibly higher levels in 1948, we are now asked to accept "drastic" government controls.

We are asked to take for granted that the ills arising from our inflationary prosperity can be cured only one way, namely, by giving Truman the wartime powers enjoyed by his predecessor, by once again entrusting our economic destinies, for an indefinite period, to bureaucratic controls which because of the unrealistic policies upon which they were based, resulted in widespread inequities and abuses.

Very recently the administration policy makers had been assuring European governments that the first step toward rehabilitation of their war-wrecked economies called for revision of their monetary systems.

They were told that it could only be done by taking the bull by the horns and "letting nature take its course," that is to say, by relinquishing the artificial pricing of money, and letting it find its own level.

Now Mr. Truman goes before Congress and says that inflation within our own country can be halted only by controls, that is, by creating artificial money values.

Reading Mr. Truman's message to Congress and noting its inconsistencies, we are forced to believe that it was written by two men, entirely without consultation or collaboration and the separate sections pasted together and handed to the President to read.

It is difficult to believe that he read the address even once before reading it to Congress without noticing the inconsistencies in the document and how his assertions differed with many of his recent statements.

Seeking New Taxes

Some ten years ago North Carolina established a three per cent sales tax which applies upon all articles, other than a few basic foods.

North Carolina had, like other states, a considerable group of its citizens, including Negroes, who had the benefit of schools, police protection, fire protection and many other governmental services, but because they owned no property and paid no income tax contributed nothing to costs of giving them the services.

North Carolina did not feel that it was obligated to give an absolutely "free ride" to any group of its citizens and realized that the only way such citizens could contribute to the public welfare was through a moderate sales tax.

As the result of the three per cent sales tax North Carolina has not only been able to deal very liberally with its schools, colleges and charitable institutions, but has set aside a fund for debt retirement which is equal to the entire state debt and also a \$30,000,000 fund which is not to be touched until the next depression and then used in lieu of taxes which will not be available during the depression. It is known as the "depression cushion fund" and it is expected that the 1949 Legislature will increase it to \$50,000,000.

The three per cent sales tax is a fixture in North Carolina and is now so well established that nobody seriously considers making an effort for its repeal.

It is generally regarded as the fairest form of taxation which can be devised, as through it everybody contributes something towards the cost of the governmental services which he, or she, receives.

While other Southern states argue the merits of a sales tax and allow merchants, who object to the trouble of

keeping sales tax accounts, keep such a tax off the books, North Carolina finds itself in splendid financial condition as the result of ten years' experience with a three per cent sales tax and with practically nobody in the state now objecting to same.

We are interested in the question because it means so much to the schools, colleges, charitable institutions and the general welfare of the Southern states.

Most of the states realize that additional revenues are needed but instead of benefiting by the experience of North Carolina, continue to flounder around while seeking sources from which to obtain additional taxes.

As an example we cite the recommendations which have recently been made by a prominent member of the Virginia House of Delegates.

(1) New taxes of three cents per package on cigarettes and one cent per cigar.

(2) A new levy of one cent per bottle on five-cent soft drinks.

(3) New tax of 50 cents per \$100 on the stocks of foreign corporations.

(4) "Modest" increases in the present income tax on individuals.

(5) An increase in the corporate income tax rate from three to five per cent.

(6) Increase "on an ascending rather than the present descending scale" in the merchants' license tax.

(7) Increase from three to five per cent the tax on receipts in excess of \$500,000 of power companies.

Almost all of these taxes will be passed on to the consumer and, although he will not know it, he will pay about as much as he would pay if he paid a three per cent sales tax.

Other Southern states, realizing that additional incomes are imperative, are seeking sources of revenue but trying to avoid a sales tax.

With more than \$50,000,000 set aside to pay in full the entire state debt as it matures, with \$30,000,000 in a special "depression cushion fund," and with unprecedented appropriations for schools, colleges and charitable institutions, North Carolina goes on its way towards even greater accomplishments and wonders why other Southern states choose to argue the merits of a three per cent sales tax.

As the result of that tax everybody in North Carolina contributes something towards the costs of schools, colleges, police and fire protection and other services and nobody gets a "free ride."

A Very Appropriate Place

Henry Wallace spoke to a non-segregated audience in a Negro church in Atlanta, Ga., Nov. 20 against—Wall Street, universal military training, segregation and what he called public hysteria on the subject of Communism.

As social equality with Negroes is one of the tenets of Communism, it was appropriate that one of the leading advocates of the principles of Communism should hold a non-segregated meeting in a Negro church.

Prof. E. E. Ericson of the University of North Carolina took dinner in a Negro hotel at Durham, N. C., with a Negro Communist and then early in the war, when the Communists thought Russia was upon the side of Germany, was one of the speakers for the Peace Mobilization League which was trying to prevent or slow down our

preparations for the conflict which was ahead.

Speaking in the Negro church in Atlanta, Henry Wallace said:

Let's remember that the Communists did not cause the problems for which they offer radical solution. They didn't remove controls that cause inflation. They didn't pass the Taft-Hartley bill. They didn't cause segregation of the races in our states. The Communists aren't responsible for the poll tax.

It was to be expected that Henry Wallace would defend and laud his friends, the Communists.

Of course, Clark Foreman of Nashville, Tenn., was present with his hand out and as usual was collecting funds for the promotion of social equality between whites and Negroes.

Whitin Machine Works Opening

We congratulate the Whitin Machine Works of Whitinsville, Mass., upon the opening of its new offices and shop building on Dowd Road in Charlotte.

Almost all of the officials of the company were to be in Charlotte Nov. 21 to assist Southern Agents R. I. Dalton and W. H. Porcher receive the hundreds of textile manufacturers who, during the day, planned to inspect the building.

The visitors should be impressed with the offices and arrangements and especially with the very large and well equipped machine shop in the rear, in which more than 100 skilled machinists are engaged in repair work and in the manufacture of long draft change-overs.

Whitin Machine Works has made a large investment in order to be better able to serve the mills of the South and we are much pleased to see it permanently located only a few blocks from our own building.

North Carolina Baptists Take Stand

The North Carolina Baptist Convention, meeting at Winston-Salem Nov. 10 and 11, adopted a resolution approving a report by a commission appointed last year.

As we face the imminent possibility of industrial conflict in our era, your commission believes that the role of the church should be clearly defined. We do not believe that the church can take sides in the struggle. We cannot give aid to the organizing of labor unions. We cannot give aid to management in any struggle against unions. Nor can we be identified with the co-operative movements. To do so would be to negate the greater mission of the church.

We ask furthermore that our people examine carefully the frightening manner in which we are losing our individual freedom under group pressure. The industrialist faces it in his association of manufacturers. The laborer faces it in his union, the farmer in his co-operative.

Such organized groups are a part of our mechanized society but their dominance over the individual conscience must be resisted.

We must by teaching and preaching defeat any influence that would divide us into groups belligerently opposing each other. We are challenged to promote unity and understanding in the face of a threat to divide us into warring factions.

In plain language the North Carolina Baptists declared that they were not going to be used as tools by professional racketeers affiliated with labor unions or with such organizations as the Federal Council of Churches nor will they be propaganda agents of any organizations controlled by manufacturers or employers.

The editor of this publication, being a Methodist, cannot help wishing there could be equal freedom in the Methodist Church which under its control by bishops, has a system under which there is very little more individual freedom than there was in Germany under Hitler.

LAGRANGE, GA.—Callaway Mills, valued at \$33,750,000, will operate after Dec. 1 purely for the benefit of its 7,500 employees and for charitable, educational and religious institutions, it was announced last month following a special stockholders meeting at which plans were approved to transfer control of the huge textile manufacturing concern to a new corporation controlled by the Callaway Community Foundation, a non-profit organization operated for the benefit of communities in which Callaway Mills operate.

MOORESVILLE, N. C.—Mooreville Mills, Inc., last month honored its veteran employees at a barbecue at which time 892 service pins were awarded to men and women who have worked for the mill five years or more. Eugene Edmiston and Grover H. Holthouser were presented 50-year pins while Thomas F. Hambright and Clayton Lyles received pins denoting 45 years of service at the plant. Presentation of the service pins was made by John F. Matheson, president.

COVINGTON, VA.—The Premiers, baseball team representing the Covington plant of Industrial Rayon Corp. in the Virginia Amateur League, was honored at a dinner last month and awarded the Shaughnessy Cup as victors in the league's post-season playoff. Tris Speaker, long-time center field star with the Cleveland Indians, was the principal speaker and presented the cup to the victors.

FORK SHOALS, S. C.—The Virginia Mfg. Co. yarn plant has been purchased by Riegel Textile Corp. of Ware Shoals, S. C. It is reported that the mill will be used by Riegel as a nucleus for a larger development in the near future.

GREENSBORO, N. C.—Burlington Mills Corp. has revealed plans to erect a large finishing plant, to be known as the Wake Plant, ten miles north of Raleigh, N. C., on the Neuse River. Expected to be completed in about eight months, the plant will cover an area of approximately 125,000 square feet, will cost between \$2,500,000 and \$3,000,000 and will employ between 500 and 600 persons.

ALBANY, GA.—Clark Thread Co. opened two new plants in southern Georgia last month; a finishing, dyeing and packing mill in Albany and a spinning and twisting mill in Thomasville. Dedicatory programs were conducted preceding each opening with Acting Governor M. E. Thompson of Georgia and John B. Clark, president of the firm, as principal speakers.

CULPEPPER, VA.—With authorized maximum capital of \$1,000,000, Kiamie Textile Mills here has been granted a charter of incorporation. The company will conduct a manufacturing business in throwing, spinning, carding and weaving. Ann Slep of New York was listed as president of the new firm.

GASTONIA, N. C.—Carter Finishing Co., Inc., with authorized capital stock of \$250,000, has been granted a charter of incorporation to engage in bleaching and dyeing. Incorporators are A. D. Carter and Ruby Gregg of Gastonia, and Mae Carter of Greenville.

OPP, ALA.—Opp and Micolas Cotton Mills recently have been equipped with Barber-Colman high-speed spooling and warping machinery. Installation of 400 additional looms also has been completed and new pickers, cards, drawing, slubbing and spinning equipment will be installed in the near future, company executives reveal.

NEWBERRY, S. C.—Weir Mills, Inc., has received a charter of incorporation and will engage in the manufacture of 80x80 print cloth. Upon installation of all weaving machinery, the firm will have approximately 100 looms in three buildings and will operate on a three-shift basis. Fred J. Weir is president of the company.

SPARTANBURG, S. C.—Installation of 80 new looms on the ground floor of the No. 1 Mill of Beaumont Mfg. Co. is expected to be completed soon. The new looms are being placed in space formerly occupied by 22 twister frames recently dismantled and sold to Burlington Mills Corp. Thirty-eight of the looms will be of 54-inch width and the remainder 40-inch width.

GASTONIA, N. C.—A certificate of incorporation has been granted the Waxahaw Mfg. Co. to deal in textiles. Authorized capital stock is \$100,000, with subscribed stock \$300, by D. R. Lafar, Jr., Harry Allen and R. E. Caldwell, all of Gastonia.

STATESVILLE, N. C.—Dottie Lou Mills, Inc., cotton yarn plant, was scheduled to be sold in a liquidation sale at auction on Dec. 2. Capacity of the plant is between 8,000 and 10,000 pounds of yarn weekly. The auction will include the land and buildings, production plant, warehouse, office equipment and inventory.

ATLANTA, GA.—A new company has been formed to operate Gate City Cotton Mills here with I. C. Milner of Atlanta as president. D. T. Manget, Newnan cotton broker, will be vice-president, and W. N. Banks, who owns mills in Grantville, Newnan and Atlanta, is expected to be made chairman of the board. F. E. Hogan will continue as treasurer of the firm and C. F. Robertson as secretary.

GREENWOOD, S. C.—Contracts totaling \$550,000 were signed Nov. 18 between the Self interests of Greenwood and the Air Engineering Co. of Charlotte, N. C., for the installing of air conditioning apparatus in Mathews Mills Plant No. 2, Greenwood Cotton Mills Plants Nos. 1 and 2, and Ninety-Six (S. C.) Cotton Mills. The first units of the new systems are scheduled to be in operation in May, 1948, and the last units in May, 1949.

TALLADEGA, ALA.—Coosa Valley Mills, Inc., last month changed its name and now is known as Highland City Mills. David S. Cook, president, said the firm planned to begin operations in a small way and with favorable conditions expected to have substantial production during the first quarter of 1948. The firm manufactures worsted yarns for both the knitting and weaving trades and can handle a range of worsted counts from 8s to 36s both single and ply.

U. S. RING TRAVELERS



Bevel Edge

**Bronze
Travelers
for
WET
TWISTING**



Bevel Edge

U. S. Ring Travelers are made in every style and size for wet twisting on vertical rings. We supply all standard types. In addition, we make the exclusive Bevel-edge design, which we strongly recommend for certain kinds of work.

*A Style and Size for
Every Textile Fibre*

"U. S." offers a COMPLETE Traveler Service—a complete line suited to every fibre and operation—complete engineering service assisting you in traveler selection and maintenance for maximum spinning and twisting production.



EXTENSIVE STOCK FOR PROMPT SHIPMENT

U. S. RING TRAVELER CO.

AMOS M. BOWEN, President & Treasurer

HOME OFFICE & FACTORY: PROVIDENCE, R. I.
SOUTHERN OFFICE & WAREHOUSE: GREENVILLE, S. C.

Write, wire or phone nearest office.

W. F. Vaughan, W. H. Rose, Greenville, S. C. . . . Box 792—Phone 3031
O. B. Land, Athens, Ga. . . . Box 1187—Phone 478
L. H. Mellor, Jr., Mid-Atlantic States . . . Phone Hilltop 2946
123 Treaty Rd., Drexel Hill, Pa.
H. R. Fisher, Concord, N. C. . . . Box 83—Phone 8366
C. W. Smith, H. J. Smith, Providence . . . Box 1187—Gaspee 0100



don't buy
Certified Climate
REG. U. S. PAT. OFF.
invest in it

Others have, and it hasn't
cost a cent . . . Paid for
itself remarkably soon.

Parks-Cramer Company

Fitchburg, Mass.

Charlotte, N. C.

Promotions, Resignations, Honors,
Transfers, Appointments, Elections,
Civic and Associational Activities

PERSONAL NEWS

William N. Chace has been elected a vice-president of Greenwood Mills, Inc., New York City. Before joining Greenwood in January, Mr. Chace previously had been connected with Burlington Mills Corp. and American Viscose Corp.

Dr. Albert B. Newman, formerly associated with Monsanto Chemical Co. and now professor of chemical engineering at the College of the City of New York, has been elected president of the American Institute of Chemical Engineers. F. J. Curtis, vice-president of Monsanto Chemical Co., was named vice-president of the association for 1948. Directors for the coming year are William T. Nichols, technical assistant to the executive vice-president of Westvaco Chlorine Products Corp.; William I. Burt, vice-president of B. F. Goodrich Chemical Co.; John J. Healy, Jr., Merrimac Division, Monsanto Chemical Co.; and M. C. Holstad, head of the department of chemical engineering, University of Pennsylvania.

David W. Hawskworth, formerly office manager of Aleo Mfg. Co. of Rockingham, N. C., has been named controller of Lime-

stone Mills and Hamrick Mills of Gaffney, S. C., all owned by M. Lowenstein & Sons of New York.

J. Rollins Jolly has been named general superintendent of the Dalton and Tallapoosa, Ga., plants of American Thread Co., and Dan Hurst has been named superintendent of the Dalton plant, the position formerly held by Mr. Jolly.

R. C. McCall, Greenville and Easley, S. C., textile executive, was re-elected president of Organized Business, Inc., of South Carolina at the seventh annual meeting of the group in Greenville last month.

H. A. Burow, manager of Bonham (Tex.) Cotton Mills, Inc., was elected president of the Texas Manufacturers Association at the group's annual convention in Houston recently.

James E. White, formerly an employee of the Lyman, S. C., plant of Pacific Mills, recently received an appointment to the United States Naval Academy, Annapolis, Md., and is now a cadet at the academy.

Harry L. Welsted and Howard A. Lovejoy have joined the sales staff of Monsanto Chemical Co. and will work principally in the textile industry in the Carolinas and Georgia, making their headquarters in Charlotte, N. C.

William M. Lee, formerly chief of the chemicals and plastics section of the U. S. Quartermaster General's Office, has joined the research and development department of the Pennsylvania Salt Mfg. Co. as supervisor of the special products division.

Robert Meyers has been appointed superintendent and manager of White-Tex Mills, Raeford, N. C. He was at one time superintendent of Hampton Spinning Mills, Clover, S. C., and later was with Exposition Cotton Mills Co., Atlanta, Ga.

Howard A. Mayo, formerly associated with Dan River Mills, Danville, Va., has joined the staff of the research and development laboratories of Kimberly-Clark Corp., Neenah, Wis. Mr. Mayo is a graduate of North Carolina State College School of Textiles, Raleigh.

J. T. Chalmers and G. C. Cater have been named superintendent and assistant superintendent, respectively, of Orr Cotton Mills at Anderson, S. C.

Donald Comer of Birmingham, Ala., chairman of the board of directors of Avondale Mills, Inc., has been named the South's "man of the year for 1947" by the magazine *Dixie Business*. The honor is extended on the basis of having performed distinguished service to the South. Mr. Comer is board chairman of Coosa River Newsprint Co., the first such undertaking in the Southeast.

Miles A. Carpenter has been appointed assistant superintendent of Erwin Cotton Mills Co. No. 3 plant at Cooleemee, N. C. Mr. Carpenter joined Erwin Mills in 1932, following his graduation from North Carolina State College School of Textiles, Raleigh, and has been connected with the firm since that time, with the exception of about two years. J. L. James is manager of the Cooleemee plant and T. C. Pegram is superintendent.

G. S. Boothroyd, production manager of E. Gordon Whiteley, of Morley, Leews, England, and development engineer on the company's Mordale bobbin cleaner, arrived in this country recently and will spend several weeks visiting textile mills and the shops that manufacture textile machinery and equipment. At present, Mr. Boothroyd is making Charlotte, N. C., his headquarters and in company with Oliver D. Landis, the



Pictured above are officials of American Viscose Corp. during their visit to Charlotte, N. C., as guests of Harry L. Dalton of Charlotte, director of the firm's public relations and a member of its board. Left to right, front row: F. E. Long, Marcus Hook, Pa., plant manager; G. S. Tompkins, viscose production manager; F. H. Griffin, vice-president and director; Mr. Dalton; H. H. Bitler, acetate production manager; W. B. Olmstead, general sales manager and director. Second row: H. S. Michel, Lewistown, Pa., plant manager; P. E. Hill, Meadville, Pa., plant manager; A. G. McVay, Front Royal, Va., plant manager; R. M. Pfalzgraff, chief engineer; Leroy H. Smith, Roanoke, Va., plant manager; Paul Woodward, Parkersburg, W. Va., plant manager. Third row: N. A. Cocke, Jr., Alex Hanes, Charles Bonner and A. S. Cookman of the Southern sales office in Charlotte.

Houghton Wool Tops

PROMPT SHIPMENT ALL GRADES ON SHORT NOTICE

SUITABLE FOR BLENDS WITH RAYON OR COTTON

Write or Phone Our
Sole Representative
JAMES E. TAYLOR
Telephone 3-3692
CHARLOTTE, N. C.

HOUGHTON
WOOL COMPANY
253 SUMMER STREET ★ BOSTON

HEADQUARTERS

FOR

SIZING • PENETRANTS
SOFTENERS • ALKALIES

SHUTTLE DRESSING

"TWIST-SETTER" MACHINES

SEYDEL-WOODLEY & CO.

TEXTILE CHEMICALS
748 RICE STREET • ATLANTA, GA.



You Can Eliminate

Humidifier Trouble!

HUMISOL, a soluble pine solvent, keeps the humidifier system clean. No stopped up lines and no more heads to clean out when you use HUMISOL. It is easy to use, saves time, saves labor.

Try HUMISOL, we guarantee results unconditionally.

708 Jefferson St.,

N. W.

Phone HE 1876

ATLANTA, GA.

Guardian
CHEMICAL COMPANY

The QUALITY LINE of Floor Finishes, Disinfectants, Cleaners and Deodorants



Baling Press

Motor Drive, Silent Chain, Center of Screw.

Push Button Control — Reversing Switch with limit stops up and down.

Self Contained. Set anywhere you can run a wire.

Our Catalogue sent on request will tell you more about them

DUNNING & BOSCHERT PRESS CO., Inc.

328 West Water Street

SYRACUSE, N. Y.

WENTWORTH

Double Duty

Travelers



Reg. U. S. Pat. Off.

HICKS — AMERICAN — WILSON — U. S. STANDARD

Last Longer, Make Stronger Yarn,
Run Clear, preserve the SPINNING
RING. The greatest improvement
entering the spinning room since the
advent of the HIGH SPEED SPINDLE

NATIONAL — ETARTNEP FINISH
A NEW CHEMICAL TREATMENT

Manufactured only by the

NATIONAL RING TRAVELER CO.

PAWTUCKET, R. I.

131 W. First St., Charlotte, N. C.

L. EVERETT TAYLOR, So. Agent

CLINTON

STARCHES

for all
**Textile
Purposes**

1907 — 1947

40 Years of
Friendly Service

CLINTON INDUSTRIES, Inc.

Clinton, Iowa

QUALITY • UNIFORMITY
SERVICE

company's Southern agent, will visit plants in that section.

Dr. Earl E. Berkley, for the past ten years associated with the bureau of plant industry of the Department of Agriculture, has joined the technical staff of the National Cotton Council, Memphis, Tenn. At the council, Dr. Berkley will be available for co-operation with the various textile laboratories in their research work on cotton.

Charles R. Yates of Atlanta, Ga., last month joined the firm of Joshua L. Bailly & Co., Inc., of New York, selling agents, and will handle the Southeastern territory with headquarters in Atlanta. Mr. Yates, a noted golfer, won the British Amateur Golf Championship in 1938 and was a member of the United States Walker Cup Team in 1936 and 1938. Before joining Bailly he was assistant vice-president of the First National Bank of Atlanta.

William B. DePass, formerly sales manager of the textile colors division of Interchemical Corp., Fair Lawn, N. J., has been elected divisional vice-president. Mr. DePass, a graduate of Clemson (S. C.) College, previously had been connected with Southern Bleachery & Print Works, Taylors, S. C., and Ware Shoals (S. C.) Co.

L. N. Harrison, Southeastern district manager of the Votator Division of the Girdler Corp., has moved his headquarters from Charlotte, N. C., to 505 Forsyth Building, Atlanta, Ga.

T. R. Morton, formerly general overseer of carding and spinning at Magnolia (Ark.) Cotton Mills Co., has been appointed superintendent to succeed J. W. Amburn, resigned. Glenn Daly and Otis Alridge were promoted from second hands to overseers of spinning and carding, respectively, and Tom Norman of Dallas, Tex., was named overseer of spinning on the second shift.

John D. Gannett has been elected advertising manager of Draper Corp., succeeding the late S. Walter Batty. Mr. Gannett was connected with Spartan Mills, Spartanburg, S. C., for about a year before joining the Draper organization in March, 1936.

R. H. Dickinson is now superintendent of the Acworth, Ga., plant of Clark Thread Co.

C. Norris Rabold, head chemist for Union Bleachery at Greenville, S. C., for more than 11 years, has resigned that position effective Jan. 1 to become director of chemical research for Erwin Cotton Mills Co., with headquarters at Durham, N. C.

Charles B. Faircloth has resigned as assistant secretary and assistant treasurer of May McEwen Kaiser Co. at Burlington, N. C., to join Springs Cotton Mills, Lancaster, S. C., as assistant to the treasurer. His new duties begin Jan. 1.

OBITUARY

A. Templeton Cloniger, 67, who as general superintendent was associated with his sons in management of Neely Cotton Mills, Inc., and York Mills, Inc., both at York, S. C., died Nov. 8 following a lengthy illness. Surviving are his wife, three daughters, three sons and two brothers.

Benjamin M. Brown, 60, assistant vice-president of Tennessee Eastman Co., Kingsport, Tenn., died last month. Mr. Brown, who had been connected with Tennessee Eastman Co. since 1920, is survived by his father, his wife and a son.

A. Sam White, 78, retired textile executive of Clayton, N. C., passed away recently. During 50 years in the textile industry Mr. White was connected with Cannon Mills, the old Clayton Cotton Mill, and Adams-Millis Corp. Surviving are his wife, three daughters and five sisters.

D. A. Hoover, 65, at one time superintendent of American Yarn & Processing Co., Mount Holly, N. C., where he was employed for about 50 years before his retirement, died last month. He is survived by his wife, two sons, four daughters, six sisters and two brothers.

John Augustus Moore, treasurer of Edenton (N. C.) Cotton Mills, died Nov. 15 at Duke Hospital, Durham, N. C., after

an illness of several weeks. Mr. Moore was active in a number of textile organizations, having formerly been a chairman of the Carded Yarn Association, president of the North Carolina Cotton Manufacturers Association, a member of the executive committee and the board of directors of the Cotton-Textile Institute, and a director of the Institute of Textile Technology, Charlottesville, Va. He was president of Patter-son Mills, Roanoke Rapids, from 1917 to 1929. Surviving are his wife, a son and two daughters.

Preston S. Arkwright, Jr., 44, president of the Georgia Power Co., died Nov. 6 at a hospital in Washington, D. C. Mr. Arkwright succeeded his father, Preston Arkwright, Sr., as president of Georgia Power Co. upon the death of the elder Arkwright last Dec. 2.

Fred A. Decker, 60, of Charlotte, N. C., vice-president of Textile Specialty Co. at Greensboro, N. C., died recently in a Charlotte hospital. Surviving Mr. Decker are his wife, two sons and a daughter.

Eugene B. Graham, Sr., 73, president of the Charlotte (N. C.) Supply Co., died Nov. 7 following a heart attack. Mr. Graham, who had been in the textile and mill supply business since 1898, is survived by five sons and a daughter.

Edwin M. Allen, 75, former chairman of the board and former president of Mathieson Alkali Works, died Nov. 2 at his home in Rye, N. Y. He was a director of Mathieson at the time of his death. During both world wars Mr. Allen served as chief of the Army Chemical Warfare Service in the New York Procurement Division and during World War II also served as a member of the Army and Navy Munitions Board.

Adolph Muller, 81, who retired in 1933 as president of the now defunct National Ribbon Co., of Paterson, N. J., died recently at his home in Brooklyn, N. Y. Mr. Muller, who was the founder of the Textile Color Card Association of the United States, is survived by two sons and two daughters.

For the Textile Industry's Use

EQUIPMENT - SUPPLIES - LITERATURE

News Of Charlotte Firms Serving Textile Industry

Of interest to the Southern textile industry is the following information relative to equipment and supply firms at Charlotte, N. C.:

Watson & Desmond, machinery and mill supply distributing concern, has moved its offices to 218½ West Fourth Street from its previous location at 118½ West Fourth. Clifton E. Watson

and S. P. V. Desmond are partners in the firm.

American Monorail Co., builder of overhead handling equipment and cranes and a variety of automatic cleaning equipment, has opened a Carolinas district sales agency at 1506 Central Avenue. E. F. Kulp, formerly with the firm's office at Greensboro, N. C., is in charge of the Charlotte branch.

Hall-Karro Co. has been chartered to deal in textile machinery and has

set up offices at 218½ West Fourth Street. Partners in the concern are E. Pat Hall of Charlotte and Jack Karro of New York City.

Carolina Foods, Inc., with temporary headquarters at 420 North Church Street, has been appointed regional representative for South Carolina and lower North Carolina by Mealpack Corp. of America, producer of Mealpack containers and service carts. Reuben H. Graham, Jr., is chief executive

For Longer Leather Life

S. T. C. POLISH

Made especially for preserving leathers used in covering STAFFORD THREAD CUTTER metal front box plates. Seals fibers on edges and gives leather a smooth, durable finish. Dries immediately. Easy to use.

CAROLINA BELTING COMPANY

P. O. Box 1377 • 26 Augusta Street
GREENVILLE, SOUTH CAROLINA

COMPLETELY INTEGRATED OPERATION

Selling for

MILL ACCOUNT ONLY

**FINISHED CLOTH . . . GREY CLOTH
FABRICATED HOUSEHOLD ARTICLES**



Distribution

NATION-WIDE

WORLD-WIDE

A GREAT TEXTILE SELLING ORGANIZATION

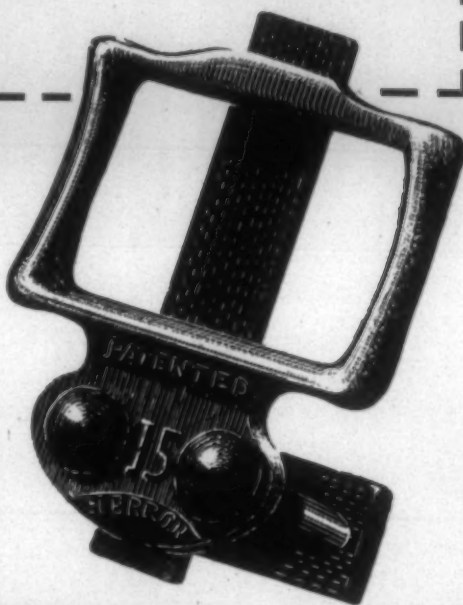
ISELIN-JEFFERSON

COMPANY, INC.
HEAD OFFICE:

90 WORTH STREET • NEW YORK 13, N. Y.

**CHICAGO • BOSTON • PHILADELPHIA
ST. LOUIS • ATLANTA • DALLAS • LOS ANGELES**

SETTLE YOUR LUG STRAP TROUBLES



**with
the**

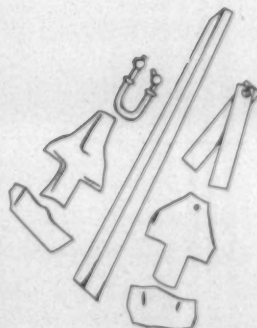
HERRON LUG STRAP SUPPORT

Patent No. 2,140,675

**FURNISHED WITH
LEATHERS, BOLTS AND
ALL NECESSARY PARTS,
READY TO APPLY**

The Herron Lug Strap Support is a decided improvement over the conventional type support. Thousands and thousands now in use offer ample proof of their dependability and economy. Easy to apply and adjustable to the power of your loom. Send us your order for a minimum of twelve sets and watch results.

Immediate Delivery
Made of the best malleable iron obtainable.



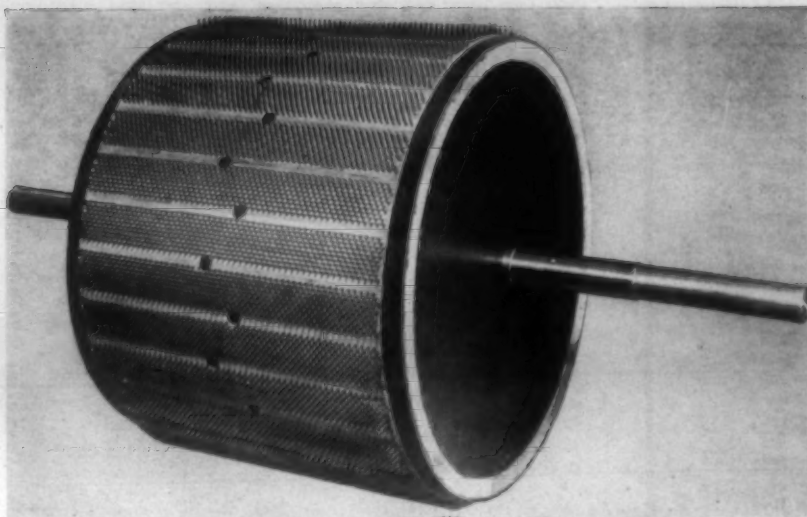
Save time and effort by replacing these old type supports with the new Herron Lug Strap Supports.

Manufactured exclusively by:

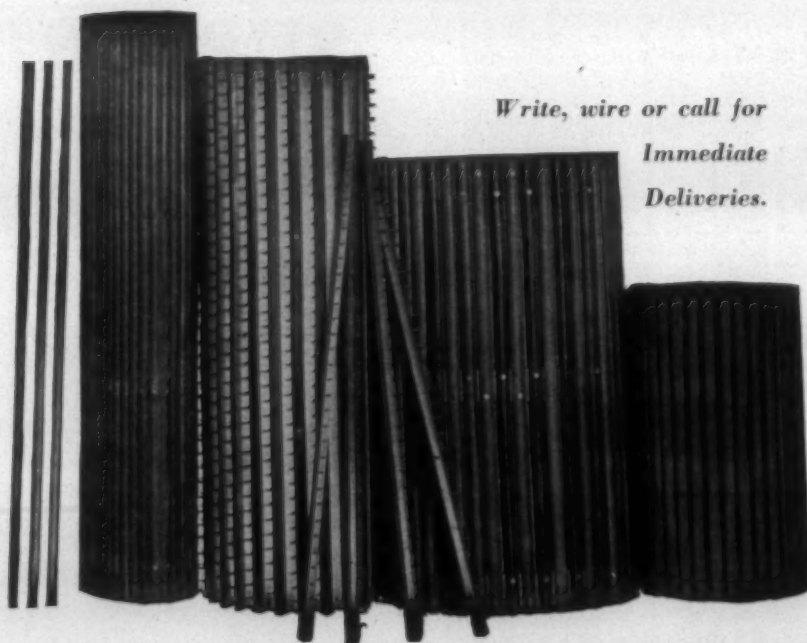
ACME MACHINE & TOOL CO.

2601 Wilkinson Blvd. — Tel. 4-5633 — Charlotte, N. C.

**(NO OTHER COMPANY IS LICENSED TO
MANUFACTURE THIS DEVICE)**



- W3 Waste Machine Cylinders.
- Beaters made to order for all make machines.
- All type Slats, made to order.
 - Stripper Rolls.
 - Twister Skewers.
- Dowling, from 3/16" to 5/8".
- Beater Lags, fitted to order.
- Picker Aprons, Spiked and Plain, for all makes of Pickers, Openers, Breakers, Waste Machines, Garnet and Hydrolet Machines, new and reworked.



Write, wire or call for
Immediate
Deliveries.

Todd-Long Picker Apron Company

GASTONIA, NORTH CAROLINA

Office Phone 1568

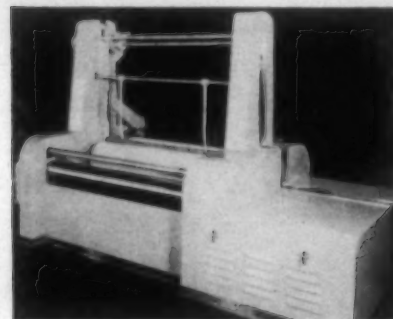
Plant Phone 810

17 YEARS OF CONTINUOUS SERVICE

of Carolina Foods, Inc., which is offering service of hot meals to employees of industrial firms within reasonable distance of the commissary at Charlotte.

Butterworth Streamlines Simpson Cloth Winder

A plan to improve the appearance of textile equipment through "appearance designing" was announced recently by H. W. Butterworth & Sons Co., Philadelphia, Pa.



Under a new streamlined steel cover is the well-known Butterworth Simpson cloth winder (illustrated). In appearance the machine is radically changed. In performance it is said to be superior to any winder ever built by the Butterworth organization. This improved winder is equipped with pneumatic cut-off and an automatic slitter. The cloth can be cut and the next roll begun all in one automatic operation. The pneumatic cut-off winder saves refinishing of up to 50 yards of cloth that normally is spoiled in completing one roll and beginning another. It also saves time, and saves workers the strain of heavy lifting. Final results have proved that appearance designing accomplishes more than increased eye-appeal. The cover protects the working parts from dirt and foreign matter, thus reducing maintenance problems. Workers are protected from moving parts. In the case of washers, etc.; the liquor is prevented from leaking and splashing. The covers are designed for quick, easy removal when adjustment, repairs or cleaning becomes necessary. The machine is equipped with individual motor drive and has centrally controlled lubrication.

Double Shuttle Pile Fabric Loom Available

With pile fabrics in acutely short supply all over the world, textile men

will be particularly interested in a new loom—available for prompt delivery—which speeds pile fabric weaving. Through ingenious use of two shuttles, this machine weaves two layers of material at the same time, doubling its capacity. The new loom, manufactured by Aufhauser Bros. Corp., processes velvets, velours, mohairs, frieze, moquette, and other double pile fabrics. It utilizes all types of yarn, including cotton, wool, silk, rayon, jute, nylon and other synthetic fibers. Product of a leading European loom designer, it is constructed for heavy duty, 24-hour-a-day production. Provision is made for jacquarding, and the entire unit is compact and easy to operate. Manufacturers, exporters and others may learn more about this equipment by writing to Aufhauser Bros. Corp., 52 Wall Street, New York 5, N. Y.

Union Stop-Fire Offers New Fire Extinguisher

A new development in fire-fighting equipment has been announced by Union Stop-Fire Corp. of Brooklyn, N. Y. The tank of the extinguisher is out of the way during use, being suspended by a shoulder sling that leaves both hands free. A turn of the readily accessible valve releases an instantaneous stream of fluid. The hose attachment enables the user to attack a fire in any direction, merely by aiming the hose where desired. The extinguisher is available in both one-quart and 2 1/2-quart sizes.



In the Stop-Fire extinguisher (shown at left), carbon dioxide is blended with carbon tetrochloride to produce a chemical claimed to be of extraordinary effectiveness in putting out fires.

Shot as a fine spray from the extinguisher, this chemical mixture is converted instantaneously into a heavy, fire-smothering gas, effective against even the most stubborn fires, including cotton, oil, gasoline and electrical fires. The bulk of the chemical stream travels anywhere from 15 to 25 feet and will not damage machinery or fabric. The fluid is effective indefinitely, and when the gauge indicates refilling of the tank is necessary, the job can be done quickly and easily on the premises by some employee. Stop-Fire ex-



on floors kept **CLEAN,** **SMOOTH, SAFE** with the

TENNANT

FLOOR MAINTENANCE
SYSTEM

To give a **BIG** boost to morale, here's the place to start—wood floors made bright, safe, and "sure-footed" by TENNANT dry-cleaning. You get rid of dangerous, slippery grime... make floors many times brighter... and keep floors in better shape than ever before, usually at less cost!

BRINGS FLOORS TO LIFE! With the mechanized, easy-to-use Tennant System you whisk off dingy, oily top fibers. Leaves wood smooth and bright.

MAKES FLOORS DIRT-RESISTANT. Sealing process hardens floor... makes it tough, durable, easy to keep clean.

DRY CLEANS, ELIMINATES SCRUBBING. Saves hours of tedious manual work... makes your floors cleaner, brighter, smoother than you'd believe possible!



Send for
complete
details.



TO YOUR SPECIAL NEEDS

The Tennant System for your mill will be individually selected, planned and arranged for your specific needs. Assures best results... saves you time and expense. **ASK FOR A REPRESENTATIVE TO CALL.** No obligation.

G. H. TENNANT CO.
2580 NORTH SECOND STREET
MINNEAPOLIS 11, MINNESOTA

THE TENNANT SYSTEM

**ENDS
SCRUBBING**

and can be used
throughout
your mill



tinguishers are in use in many well-known Southern mills, including Mooresville Cotton Mills, Textiles, Inc., Peerless Spinning Corp. and others. L. B. McWilliams, 2104 Wilmore Drive, Charlotte, N. C., is the company's Southern representative.

Calco Technical Bulletin On Vat Dyeing Of Wool

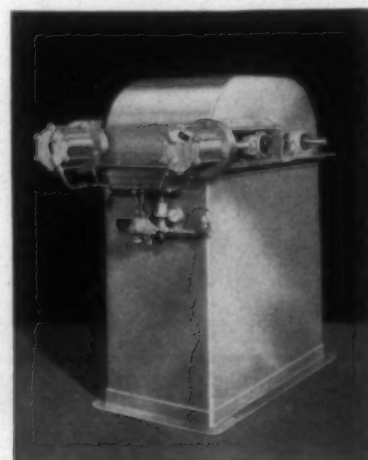
The textile industry has recently taken a forward step by the introduction of a new process which permits the use of vat dyes in the dyeing of wool. This class of vat dyes, representing the widest range and the fastest types of vat colors, has not been used successfully hitherto in large production. The new process is of great interest to the textile industry generally, in view of the ever increasing demand for wool shades of better fastness to light and washing by manufacturers of automotive upholstery fabrics, knitting yarns, carpet yarns and blankets. This new development makes available to the wool dyeing industry, for the first time, the use of bright shades with the extreme fastness which hitherto could only be obtained

in cotton and rayon fabrics. By reason of the introduction of this new process for the vat dyeing of wool, most wool fabrics today can be treated with Lanaset resin to control shrinkage without impairing fastness properties or brightness of shade. These new advances in the technology of wool dyeing and finishing will lead to substantial increases in the use of wool fabrics. Much of the development work on the vat dyeing process has been performed by the Calco textile sales service department. The new Calco Technical Bulletin No. 797, *Vat Dyeing of Wool*, outlines the fundamental dyeing procedures. A copy of this bulletin may be obtained from Calco representatives or by writing the Advertising Department, Calco Chemical Division, American Cyanamid Co., Bound Brook, N. J.

New Design Is Featured In Wiesner-Rapp Squeezer

A new rope-type squeezer has been announced recently by Wiesner-Rapp Co. of Buffalo, N. Y., designer and builder of textile finishing machinery. One of the many outstanding features

of this functionally-designed Wiesner-Rapp squeezer is the adjustable pneumatic pressure on the rubber rolls which is preset to meet the varying pressure requirements. A conveniently located dial tells at a glance the pressure on the rolls. The roller bearing take-up units on the rubber squeezer roll nearest the pneumatic cylinders are mounted on rails to permit the entire roller assembly to ride back and forth according to the thickness of the cloth and at the same time exerting constant pressure. This particular feature which provides "give" increases the life of the rolls due to shock being taken by the pneumatic cylinders instead of the rubber.



The two squeeze rollers (see cut) are located side-by-side instead of one on top of the other. By placing the rolls side by side the extracted liquid is squirted straight down into the tank and not over the surrounding floor and equipment. Both squeezer rolls are standard and interchangeable for quick, easy replacement. The entire squeezer is all-welded, stainless steel construction except the pneumatic mechanism. All-welded construction provides smooth joints which eliminate any possible catching and tearing of the material in process. Stainless steel eliminates the possibilities of staining the material from water or chemical reactions. This Wiesner-Rapp squeezer is compact, requiring only 53 1/2 by 29 1/2 inches of floor space. It is 64 inches high.

Super-Precision Catalog Describes Ball Bearings

A new catalog on super-precision ball bearings built to ABEC 7 tolerances, with special emphasis on their



Distributed by

TEXTILE SALES DIVISION
1200 Woodside Bldg.
Greenville, South Carolina

CHARLES C. SWITZER
Division Manager

•

F. M. WALLACE
Birmingham 9, Alabama

•

L. J. CASTILE
Charlotte 3, North Carolina



A KEESTAR
KIM
PRODUCT

- ★ Penetrates Thoroughly
- ★ Dependable
- ★ Carries Weight Into the Fabric
- ★ Always Uniform
- ★ Boils Thin

THE KEEVER STARCH COMPANY Columbus 15, Ohio

use in spindles, work heads, boring heads, live centers and the like, is offered by Fafnir Bearing Co. Such bearings are described as the answer where high speed or very accurate processing must be done with superior efficiency and where long life with infrequent replacements is essential. The catalog carries general information on mounting, pre-loading, lubrication, etc., with dimensions and load ratings of the various sizes manufactured in the extra light, light, medium, duplex and extra small series. In addition there are detailed drawings of actual assemblies using super-precision ball bearings. Request *Super-Precision Catalog* from Fafnir Bearing Co., New Britain, Conn., attention: Mr. T. L. Hunt.

Glyco Offers New Wax For Screen Printing

A new wax which has the property of holding fabrics without adhering to them has been developed for use in the screen printing of textiles. The wax, produced by Glyco Products Co., Inc., of 26 Court Street, Brooklyn, N. Y., and Natrium, W. Va., is applied to the screen printing tables to keep the fabric from slipping during processing. Use of the wax, called Flexo Wax C Light, avoids the danger of smudging the pattern by accidental movements of the cloth and eliminates the need for pinning the material to the table. It considerably reduces the time required in screen printing by eliminating completely the pinning and

unpinning of the fabric and also avoids the occasional losses from holes and tears. The new method has proved superior to older methods for pinning has never been satisfactory, except for high pile fabrics. Flexo Wax C Light is easily applied to screen printing tables, either by hot melt or, after being mixed with a hydrocarbon solvent, in paste form. After the wax has solidified through cooling or the evaporation of the solvent, the fabric is placed on it. Slight pressure will cause the cloth to adhere to it tightly enough to prevent slipping. Yet, because of the wax's unusual properties, wax particles will not pull off or stick to the fabric when the material is peeled from the table. For most fabrics, the natural adhesive qualities of the wax are sufficient but

FABREEKA

FOR MAXIMUM PRODUCTION

**FABCO LOOM
STRAPPING**

**FABREEKA ENDLESS
LICKER-IN-BELTS**

**FABREEKA PADS FOR
MOUNTING LOOMS AND
OTHER MACHINERY**

**FABCO-COMPENSATED BELTS
FOR RAYON
TWISTERS AND SPINNERS**

**FABREEKA CONVEYOR
BELTS AND APRONS**

Designed for long life, minimum stretch and greater flexibility. Specially constructed of layers of cotton duck impregnated with rubber in thicknesses as required. In finished strapping or roll lengths.

No stretch. No slip. Uniform operation plus long life insure continuous, more efficient production.

Absorb impact shock and vibration. Reduce building and machinery maintenance. Scientifically constructed of specially woven cotton duck impregnated with rubber. By using Fabreeka cement lag screws or bolts can be eliminated.

Specially designed for minimum stretch, smoothness of operation and long life. Can be furnished in wrapped endless construction or with stepped splices, or in roll lengths.

For all conveyor operations where cleanliness, freedom from stretch, resistance to moisture, accuracy of tracking and uniformity of operation plus long life are desired.

**Spartanburg
Office**
P. O. BOX 1108
SPARTANBURG, SOUTH CAROLINA

FABREEKA PRODUCTS COMPANY

Incorporated

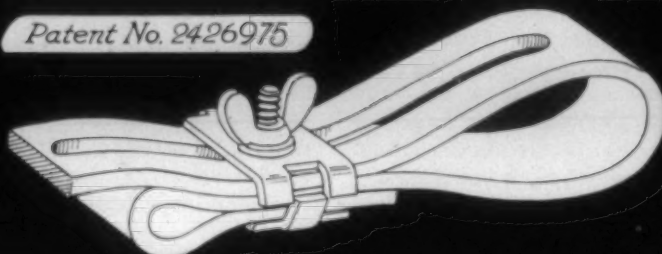
222 C SUMMER STREET

NEW YORK
PHILADELPHIA
DETROIT
BOSTON 10, MASS.
SPARTANBURG
CHICAGO

NEW

JACK STRAP

Patent No. 2426975



and CLAMP COMBINATION

**Gives Faster, More Efficient
Loom Production at Lower Cost**

Production efficiency hits a new high with this new, accurate jack strap. The patented combination permits absolute accuracy in adjustments down to 1/64"—and then protects that adjustment against vibration with an iron grip.

Put this efficiency expert to work for you today. You will save time, money, labor. Thoroughly tested & approved by leading mills. Write, wire or phone for further details.

Exclusively by

W. D. DODENHOFF CO., Inc.
GREENVILLE, S. C. MAYWOOD, N. J.
MAIN OFFICE EASTERN DIVISION

where, in special cases, greater adhesive properties are necessary, the required degree can easily be obtained by the blending of a small percentage of petrolatum with Flexo Wax C Light.

Nopco Has New Series Of Surface Active Agents

A new series of cationic surface active chemicals is now in production by Nopco Chemical Co., Harrison, N. J. Known under the trade name Nopcogen, these products possess unusual physical and chemical properties, attributed to the combination of fatty nuclei and nitrogenous chemicals. The higher molecular weight members of the series show an increasing degree of basicity and have an improved and more complete dispersibility in acid mediums. Some members of the series exhibit complete solubility in waxes, petroleum and vegetable oils, and numerous organic solvents. A most outstanding property of these surface active agents is one in which the oil phase of an emulsion is made substantive to cellulose. This property simplifies processing of yarns and fibers and improves markedly the appearance and durability of fabrics. Nopcogen products have also proved useful as wetting, dispersing and softening agents.

All-Purpose Cleaner For Textile Industries

An all-purpose cleaner and detergent for textile industries which is non-inflammable and non-corrosive and which operates speedily, thoroughly and economically is described in an attractive six-page folder recently released by American Oil & Disinfectant Corp. The folder shows how the cleaner, known as Whistleclean, aids textile production efficiency and helps cut down spoilage by doing away with oil deposits, waste, fly and dirt which impair operation; by eliminating the danger of fire that results from the use of kerosene and other petroleum products for cleaning purposes; and by avoiding the corrosion, tarnishing and discoloration of metal equipment caused by many cleaning agents. The advantages of Whistleclean as a cleaner for textile industries, as outlined in the folder, are backed up by impartial laboratory test data. A number of practical cleaning tips are also included. Copies of the folder, which is captioned *Whistleclean*

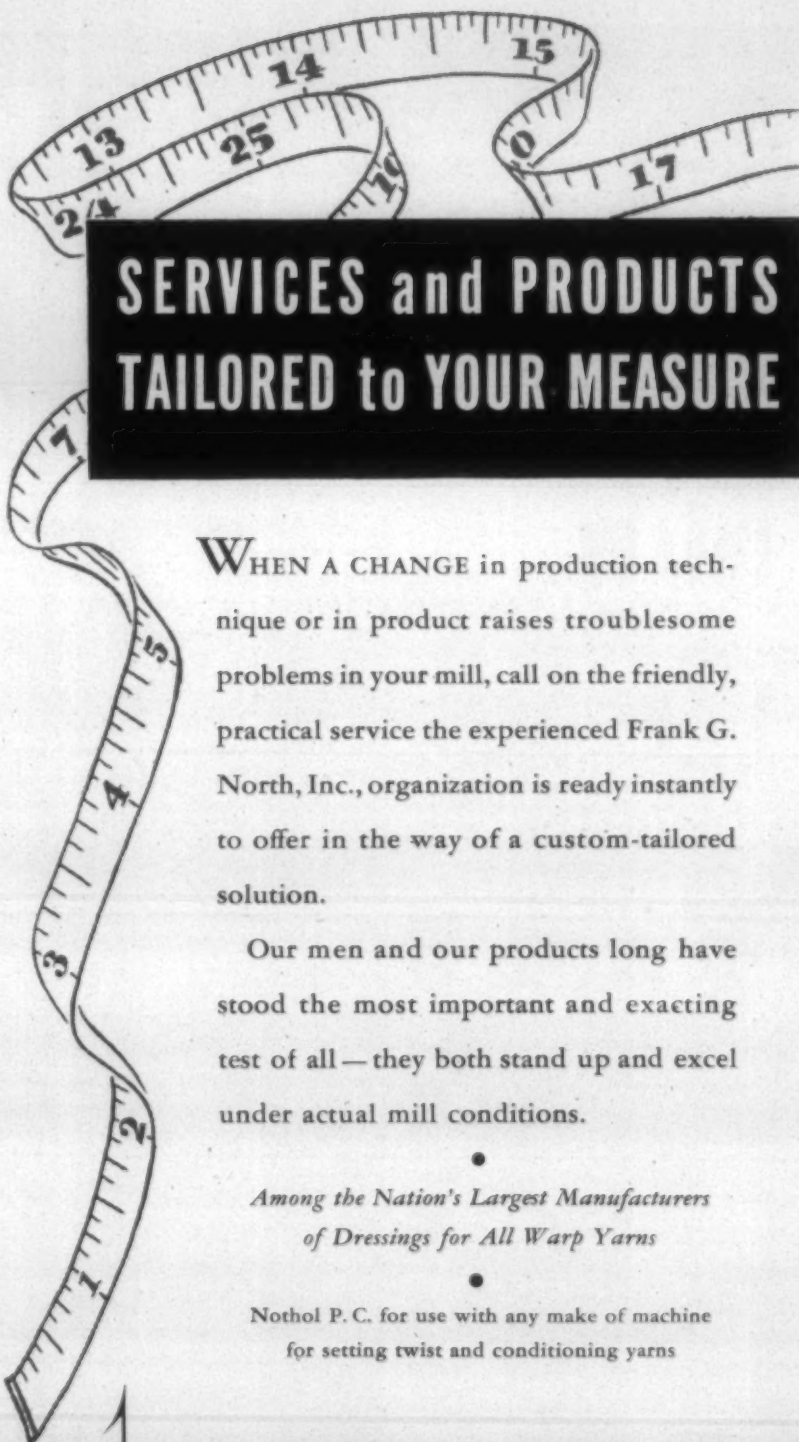
clean for Textile Industries, may be obtained by writing on business stationery to American Oil & Disinfectant Corp., 88 Lexington Avenue, New York 16, N. Y., mentioning this publication.

Hercules Synthetic Resins Are Listed And Described

A new technical booklet, which for the first time includes a description of the properties and uses of all Hercules Powder Co. synthetic resins, is now available. Hercules synthetic resins, most of which are rosin-base, have found application in a wide number of industries including protective coating, adhesives, textile sizes, and essential oils and fixatives. A key to specific uses for Hercules synthetic resins is provided on Pages 10 and 11 of the book by a chart which matches the resins with their actual and potential uses. The chart also includes the page number on which the various resins are discussed. Brief descriptions of the following groups of resins are included in the book: Methyl esters of rosin; the Cellolyns, first group of synthetic resins designed primarily for cellulosic lacquers; ester gums; Flexalyn resins, glycol esters of rosin; the Lewisols, a series of rosin maleates; the Pentalyn series of pentaerythritol resins; Petrex resins; Poly Pale esters; Staybelite esters.

Booklet Lists Procedure In Handling Of Fires

As an aid to plant management in training watchmen in the proper procedure when fire is discovered, the Associated Factory Mutual Fire Insurance Companies have just mailed to all insured properties a new 12-page booklet, *Watchman — What Would You Do?* Written in popular style and illustrated by instructive cartoons, the booklet uses the question-answer method to drive home eight important fundamentals, calling the fire department, checking sprinkler valves, and starting fire pumps. A valuable feature is a page where the watchman can record for convenient reference the names and telephone numbers of the plant officials so that they can be quickly called in an emergency. The need of this instructional material has been emphasized by experience. The booklet illustrates two unusually serious fires in recent years resulting from watchman failures.



SERVICES and PRODUCTS TAILORED to YOUR MEASURE

WHEN A CHANGE in production technique or in product raises troublesome problems in your mill, call on the friendly, practical service the experienced Frank G. North, Inc., organization is ready instantly to offer in the way of a custom-tailored solution.

Our men and our products long have stood the most important and exacting test of all — they both stand up and excel under actual mill conditions.

•
*Among the Nation's Largest Manufacturers
of Dressings for All Warp Yarns*

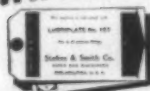
•
Nothol P. C. for use with any make of machine
for setting twist and conditioning yarns

N **FRANK G.**
NORTH
I N C O R P O R A T E D
MANUFACTURING CHEMISTS

ATLANTA, GEORGIA • P.O. Box 123, Sta. A • Phone RAymond 2196
MARIETTA, GEORGIA • P.O. Box 92 • Phone Marietta 250



NOW
WHO'LL LUBRICATE IT?



The LUBRIPLATE Tag Service assures the machinery manufacturer, who uses LUBRIPLATE for initial lubrication, that the machines will be serviced with the same outstanding lubricant. Machine Builders, use the Tag Plan. Machine users, mail the post cards you find on the equipment.

R_x FOR YOUR MACHINERY

- No. 2 — Ideal for general oil type lubrication, ring oiled bearings, wick feeds, sight feeds and bottle oilers.
- No. 8 — Because of high film strength and long life it reflects outstanding performance in most types of enclosed gears (speed reducers).
- No. 107 — One of the most popular grease type products for general application by pressure gun or cups.
- No. 70 — For a wide range of grease applications, especially at temperatures above 200 degrees F.
- No. 130-AA — Known nationwide as the superior lubricant for open gears, heavy duty bearings, wire rope, etc.
- BALL BEARING** — This is the LUBRIPLATE Lubricant that has achieved wide acclaim for use in the general wide area of ball and roller bearings operating at speeds to 5000 RPM and temperatures up to 300 degrees F.



DEALERS FROM COAST TO COAST
CONSULT YOUR CLASSIFIED TELEPHONE BOOK

Louis Allis Bulletin Shows Induction Motors

Louis Allis Co., Milwaukee 7, Wis., announces publication of *Bulletin 516-D*, which describes the company's line of Type CT rolled shell, shaftless squirrel cage induction motors for built-in drives. The booklet contains details of electrical and mechanical features, mountings, ventilation and applications.

Several New Textile Books Made Available

Textile Book Publishers, Inc., 303 Fifth Avenue, New York 16, N. Y., announces forthcoming publication of three new volumes: *American Wool Handbook* (new second edition), *Textile Brand Names Dictionary*, and *Synthetic Yarn Warp Sizing*.

The new wool handbook, authored by Werner Von Bergen and Herbert R. Mauersberger, will be ready in December and will be sold for \$8. Its 25 chapters cover sheep raising, physical and chemical properties of wool, spinning, weaving, wet and dry finishing, and testing. There is a glossary, a bibliography and wool tariff schedules and labeling rules. The brand names dictionary (\$6, ready in November) contains more than 4,000 American brand names for fibers, yarns and fabrics, each one accompanied by its trade mark. Part I is an alphabetical listing, giving registration numbers and date, the company which owns the name, and the product to which the name applies. Part II is a classified section. Here are grouped brand names for cotton piece goods, pile fabrics, rayon piece goods, silks, woollens, ribbons, yarns, and synthetics. There are 12 of these groups. Part III is a list of the companies. With this book, mills, buyers, advertisers, and attorneys seeking brand names can tell at a glance what names are used in a given field and who owns them. A useful introduction by V. Alexander Scher of Richards & Geier, patent and trade mark attorneys, describes the trade mark laws and regulations.

J. J. Sussmuth, textile engineer, has prepared the sizing volume, which will be available in January (\$5). This is a new edition of a previous book by the same author on rayon warp sizing, brought up to date and enlarged in many details. It deals with the sizing of all man-made filaments

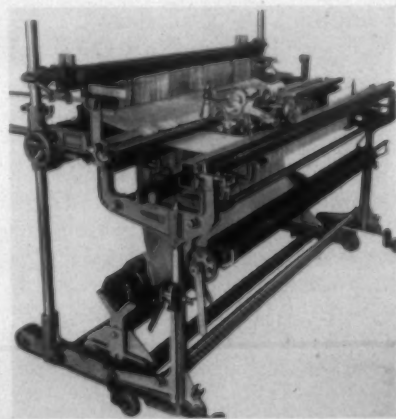
and yarns including nylon, viscose and acetate rayon, rayon and cotton tire cord. Has complete machinery details, and 24 basic formulas. It also describes maintenance, machine operation, size preparation and control instruments and has practical hints and a glossary.

Other books now being prepared include *American Cotton Handbook* (second edition), *Color Technique in Textile Printing*, *Filling-Wise Defects in Rayon Goods*, *American Nylon Handbook*, and *Mechanics of Roller Printing*.

Swiss Warp-Tying Machine Is Introduced In U. S.

A portable, fully-automatic, warp-tying machine, which ties any material from the finest silk or rayon to the coarsest woolen yarn over the width of the warp in one uninterrupted operation at a speed of 200 to 300 knots per minute, is being introduced in this country by Zellweger, Ltd., of Uster, Zurich, Switzerland.

Other Zellweger products for the textile industry include an automatic reaching-in machine which enables one operator to pass the warp threads through the droppers and harness; a denting machine which draws the threads into the reed automatically as soon as the threads are placed in the denting blade; and a dropper-pinning machine.



A demonstration of the Little Uster warp-tying machine (see cut), attended by many textile technicians, was held Nov. 5-14 at North Carolina State College, Raleigh.

In addition to employing a highly efficient principal to select and tie the threads of the new to the finished warp, the machine possesses several features of unusual interest and significance to the textile. (1) The tying unit

consists generally of one tying-head, weighing about 50 pounds, and one or several tying frames. The tying-head is an independent mechanism, easily transportable from loom to loom. Normally, two or three frames are supplied with each tying-head. This facilitates preparation of a new warp on a second or third loom while the tying-head is engaged on the first loom. For carrying the tying-head and for storing when not in use, a handy truck is furnished containing necessary accessories and tools. (2) The machine operates without interruption across the entire width of the warp. It is not necessary to periodically stop, adjust, and start the machine, regardless of the width of the warp or the number of threads. (3) It is equally adaptable to fine or coarse threads without adjustment of the operating mechanism, and without changing any of its parts. (4) Completely automatic, the machine operates on either A-C or D-C current. Manual operation also is provided.

(5) The machine is readily adaptable to any make of loom. This assures maximum utilization. Tying frames are wheel-mounted and adjustable to any required height.

The "Little Uster" is available in three models: Type 1 ties plain warps without lease, the threads of both warps being selected from the clip by replaceable needles; Type 2 ties plain and multi-colored warps with a lease, the threads being selected from the warp in correct sequence by lease tubes and a pair of hair brushes; Type 3 ties both warps with and without a lease. It is a combination of Types 1 and 2. The most versatile, it also has the added advantage of being able to tie a leased sheet to an unleased sheet. All three types are equally portable, and may be used for tying behind the loom, or as a stationary unit, when equipped with appropriate back frames.

American Key Products Sets Up Sales Division

American Key Products, Inc., 15 Park Row, New York City, distributor of domestic and imported starches, announces the formation of a specialties department to handle the sale of dextrans, glues, gelatins, natural gums, casein and related products. John A. Lowander, a former vice-president of Stein, Hall & Co., Inc., New York City, with whom he was connected for 24 years, will manage the new division.

Nothing saves like SERVICE

WITH QUALITY PRODUCTS

... Nor is anything as costly as lost production due to mechanical failures or inefficient machinery performance.

Service—prompt, efficient, dependable service with a complete line of sheet metal parts for preparatory machinery has been our business for almost twenty years.

May we serve you?



GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA

A SHEET METAL WORKS SERVING TEXTILE MILLS

CLASSIFIED DEPARTMENT

Southern Standard Mill Supply Co.

NEW, REBUILT and USED TEXTILE MACHINERY and SUPPLIES

513 So. Tryon St.
Charlotte, N. C.
Phone 3-8841

1064-90 Main St., Pawtucket, R. I.

N. Y. Office: 1022 Empire State Bldg.

C. E. LUTTRELL & COMPANY

Textile Machinery and Supplies

GREENVILLE, SOUTH CAROLINA

WANTED

Weaving and spinning mill with modern equipment located in N. C. has opening for capable young men trained in textile industry. Mill operating on rayon and blends. Write full details concerning education and experience. All information confidential.

Reply to "Weaving and Spinning"
care Textile Bulletin

P. O. Box 1225, Charlotte 1, N. C.

AVAILABLE

Manager broad cloth mill. Good business executive. Technician, good loom man. Throwster of silk, rayon, and combination yarns.

Address: "Executive," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

PAUL B. EATON
Patent Attorney

1208 Johnston Bldg., Charlotte, N. C.
783 Munsey Bldg., Washington, D. C.

WANTED

Loomfixer with experience on S-6 looms for temporary or permanent position in Mexico. Good salary and expenses. Send references and details on experience to "MEX." care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.



LOOM SPECIALISTS

Largest Warehouse Stock In The South

WE BUY, SELL OR TRADE USED TEXTILE MACHINERY AND SUPPLIES

LEON KIMMEL MACHINERY COMPANY

OFFICE AND WAREHOUSE: NEW SPARTANBURG HIGHWAY — GREENVILLE, S. C.

P. O. Box
1316

Phones
5567-7144

**NOW IS
THE TIME**



To look over your worn belts and have them repaired. We can do either or both. No charge for estimate. Call today.

GREENVILLE BELTING CO.

GREENVILLE, S. C.

Manufacturers of Leather Belting

Telephone 2218

PERFEX FIBRE BROOMS

For Quality and Economy
Textile Mill Brooms
Dye House Brooms

ask

JOHN P. BATSON

Box 841

Greenville, S. C.

WANT POSITION as Superintendent Yarn or Plain Weaving Mill, or Overseer Carding or Spinning in large mill. Have good, long experience and can furnish best of references.

Write "R. W. G.," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

NIGHT SUPERINTENDENT WANTED

Southern Mill Spinning-Weaving Spun Rayon and Cotton Fancies needs Night Supervisor. \$110.00 weekly—no house furnished.

Write "Spun Rayon," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

Wanted—Position as Superintendent. Experienced on carding, spinning, ring twisting, tube twisting (Brownell), polishing, winding and seine twines, rope. Employed; sober. Reliable and energetic. Write "HED," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—By two veterans, each 36 years of age, married, connection with progressive organization. One interested in superintendency of small or medium size mill on sheetings or prints. Other is interested in job as overseer spinning. Best references furnished. Interview welcomed. Write "L. Y. C.," P. O. Box 2085, Greenville, S. C.

TROUBLE MAN — Experienced Card Overhauler, formerly overseer carding, available for grinding, clothing, overhauling. No job too large or small. References. Address "Card," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

GENERAL OVERHAULING, moving and erecting textile machinery. Over 20 years of experience. Alfred M. Davis, Phone Dearborn 6324—1450 Memorial Drive, S.E., Atlanta, Ga.

WANTED—Position as superintendent, or assistant superintendent. 44 years old; 27 years' experience in coarse and combed yarns—scrims and 80 sq. cloth; six years as superintendent. Write "O. Y. O.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

JOB AS OVERSEER—Spinning, Twisting, Winding, and Spooling; 25 years' experience; will furnish reference. Can accept job on or by January 1, 1948. Have been out of mills since 1945, with own business at present time, but prefer mill work. Write "W. D.," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED

2 Saxmayer Model 9 Tyers.
State condition and price.

Write "Tyers," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

NIGHT SUPERINTENDENT WANTED

for mill in Piedmont Section of North Carolina. Only men who have had experience as Card Room Foremen need apply.

Write "X," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

SALES-SERVICE REPRESENTATIVE

Excellent permanent position with large manufacturer for man with cotton spinning and weaving experience. Textile engineering graduate preferred. Write full details to

"Service," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

WANTED

Job as traveling salesman for all kinds of textile supplies in eastern states. Good salesman and know textile business; now general overseer in mill. Best of references.

Write "Salesman," care Textile Bulletin,
P. O. Box 1225, Charlotte 1, N. C.

Save One-Third on Clearer Cots

Our special seaming gives clearers one-third more usable surface. Best quality CW or all wool woven clearer cloth used. Prompt Delivery. Send sample of your spinning or card room requirements for price quotation.

CLEARER DIVISION
GILKEY KNITTING MILLS
MARION, N. C.

AVAILABLE

Manager Jacquard Pile or Flat Goods, Tapestries, etc. Good business executive. Technician, practical loom man, expert on shaft work.

Address: "Technician," care Textile Bulletin
P. O. Box 1225, Charlotte 1, N. C.

POSITIONS OPEN - MEN WANTED:

Manager Southern rayon cutting and sewing plant; superintendents and assistant superintendents for worsted yarn mills; overseer woolen specking, burling and mending; overseer carding, spinning, weaving and warp preparation on spun rayon, wool mixtures, etc.; overseer cotton weaving jacquard looms; salesman for cotton spinning specialties; mechanical engineer for designing and developing textile machinery; splendid salary; overseer cotton carding, \$400 a month; silk loom fixer; jacquard card cutter, fine index work; also the following named men for South America—cotton yarn mill superintendent, \$8,000-\$10,000 a year; assistant superintendent cotton yarn mill; cotton piece goods dyer; colorists, chemists and loom fixers.

Charles P. Raymond Service, Inc. 294 Washington Street, Boston 8, Mass.
Over Forty-Five Years in Business

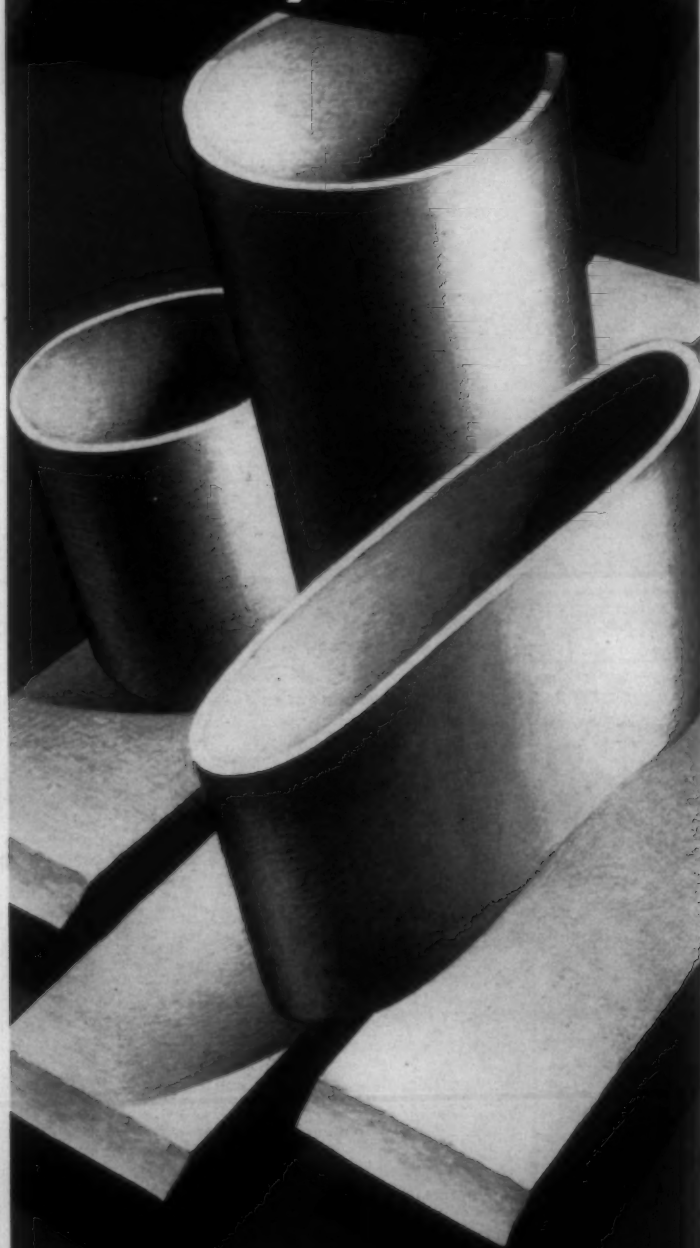
INDEX TO ADVERTISERS

	Page		Page
Acme Machine & Tool Co.	59 and 72	Dayton Rubber Mfg. Co.	5
Air Engineering Co.	93	Denison Mfg. Co.	89
Allen Co., The	77	Dodenhoff Co., W. D.	64
Aluminum Co. of America	16 and 17	Draper Corporation	7
American Cyanamid Co. (Industrial Chemical Div.)	27	Dunning & Boschert Press Co.	57
American Monorail Co., The	25	Du Pont de Nemours & Co., E. I. (Dyestuff Div.)	23
American Viscose Co.	13	Eaton, Paul B.	68
Armour & Co. (Industrial Soap Div.)	45	Fabreks Products Co., Inc.	63
Ashworth Bros.	10	Felters Co., The	94
Baily & Co., Inc., Joshua L.	86	Poster Machine Co.	3
Barber-Colman Co.	4	Franklin Process Co.	29
Barnes Textile Associates	83	Gastonia Mill Supply Co.	91
Beco Sales Co. (Buffalo Electro-Chem. Co.)	40	Gastonia Textile Sheet Metal Works, Inc.	67
Best & Co., Edward H.	85	General Dyestuff Corp.	39
Borne Strymer Co.	72	Gilkey Knitting Mills	69
Brooklyn Fibre Broom Co.	68	Gossett Machine Works	89
Brown Co., The David	80	Greenville Belting Co.	68
Buffalo Electric-Chemical Co., Inc.	40	Guardian Chemical Co.	57
Burkart-Schier Chemical Co.	75	H & B American Machine Co.	8 and 9
Butterworth & Sons Co., H. W.	43	Henderson Foundry & Machine Co.	97
Carolina Belting Co.	59	Henley Paper Co.	81
Carolina Machinery Co.	78	Hetherington & Sons, Inc., John	93
Carolina Refractories Co.	86	Houghton Wool Co.	57
Charlotte Chemical Laboratories, Inc.	85	Howard Bros. Mfg. Co.	6
Clinton Industries, Inc.	57	Hunt Machine Works, Inc.	2
Cole Mfg. Co., R. D.	76	Industrial Cooling & Moistening Co.	91
Corn Products Sales Co.	37	Iselin-Jefferson Co.	59
Crompton & Knowles Loom Works	35	Johnson Chemical Co.	91
Curtan & Barry	86	Keever Starch Co.	62
		Keller Tool Co.	76
		Kimmel Machinery Co., Leon	68
		Lambeth Rope Corp.	84
		Landis, Inc., Oliver D.	87
		Laurel Soap Mfg. Co., Inc.	85
		Lawrence Leather Co., A. C.	70 and 71
		Lubriplate Div., Fiske Bros. Ref. Co.	66
		Luttrell & Co., C. E.	68
		Marquette Metal Products Co., The	30
		McKee Belting Co.	89
		Meinhard, Greff & Co.	93
		Morrow Machine Co., The	93
		Moreland Chemical Co., Inc.	97
		Mount Hope Machinery Co.	40
		National Ring Traveler Co.	57
		Neisler Mills	86
		North, Inc., Frank G.	65
		Pabel Sales Co.	75
		Parks-Cramer Co.	55
		Pesch & Co., D. W.	87
		Penick & Ford, Ltd., Inc.	93
		Piedmont Processing Co.	86
		Precision Gear & Machine Co.	80
		Railway Supply & Mfg. Co., The	Front Cover
		Ray Chemical Co.	84
		Raybestos-Manhattan, Inc. (North Charleston Plant)	91
		Raymond Service, Inc., Chas. P.	69
		Rice Dobby Chain Co.	10
		Roy & Son Co., B. S.	82
		Saco-Lowell Shops	18
		Salisbury Iron & Steel Co.	83
		Sandoz Chemical Works, Inc.	10 and 11
		Seydel-Woolley & Co.	57
		Sinclair Refining Co.	20
		Sirrine Co., J. E.	83
		Smith, Yates D.	83
		Solvay Sales Corp.	78
		Southern Spindle & Flyer Co.	91
		Southern Standard Mill Supply Co.	68
		Standard Brands, Inc.	47
		Steel Heddie Mfg. Co.	15
		Sterling Ring Traveler Co.	96
		Stevens & Co., Inc., J. P.	86
		Tennant Co., G. H.	61
		Terrell Co., The	91
		Texas Co., The	Back Cover
		Tide Water Associated Oil Co.	33
		Todd-Long Picker Apron Co.	60
		U. S. Ring Traveler Co.	55
		Union Stop Fire Corp.	73
		Universal Winding Co.	12
		Victor Ring Traveler Co.	14
		Virginia Smelting Co.	40
		Vogel Co., Joseph A.	78
		Wallerstein Co., Inc.	82
		Wheeler Reflector Co.	19
		Whittinsville Spinning Ring Co.	87
		Wolf & Co., Jacques	48

FIRST CHOICE FOR APRONS

LAWRENCE

Calfskins



It's Better Naturally



Fall Meeting of Eastern Carolina S. T. A.

(Continued from Page 36) and then pieced it up—or tried to piece it up. It did not damage his cot at all, and the end running from this just kept right on going—it did not make a thick or thin place. It went over to the slip roll and it broke down.

MR. HORNER: How about covering those rolls?

MR. DESMOND: Well, the way we cover them, we just split this and it pops up, and we cover them just as you do the conventional roll. I don't know how long the life of your cot would be; it varies in different mills. But if the cots lasted me for four or five years I think what I would do is take them apart, wash them out, and lubricate them and put them back, instead of waiting ten years. I think, as the manufacturer said, if you get five years out of your lubrication you are doing well. Are you getting any more even yarn?

CHAIRMAN MARLEY: I cannot say. We have not rebuffed them.

QUESTION: How do you rebuff them?

CHAIRMAN MARLEY: There is a special attachment that you can put on your buffing machine to hold them.

MR. DESMOND: You put on that attachment and put on two rolls and buff them right together.

CHAIRMAN MARLEY: We have one question left. That is on mechanical roll pickers.

VIRGIL E. McDOWELL, assistant superintendent, Rosemary Mfg. Co., Roanoke Rapids: We have had the ones run by air in the carding and spinning now for a good little while, and we would not take anything for the ones we have if we knew we could not get anymore. It has so many advantages over the hand picking. One of the main advantages over the hand picking is that you clean the bottom rolls so well. By keeping them picked regularly every week you can keep the chokes out from around the necks of your rolls. We have been very successful with them in our mill, both in carding and spinning. We use them on all frames, both conventional and long draft.

MR. HORNER: How often do you pick your steel rolls?

MR. McDOWELL: We pick the steel and the top at the same time. Just once a week.

MR. HORNER: How often do you pick your top rolls, in spinning?

MR. McDOWELL: I don't believe I mentioned that question exactly. One hand can pick 24 sides, using this mechanical picker, and do a much better job of keeping the top roll clean and the bottom steel roll clean than by hand. You can pick about four more sides with a mechanical picker, at least, than you can by hand.

QUESTION: How many sides could an operator pick, operating it for eight hours?

MR. McDOWELL: Twenty-four.

QUESTION: What do you do with the picker and the hose when you are not picking?

MR. McDOWELL: We disconnect the hose and have a rack where we can hang the hose when not using it. We have enough sockets so we do not have to use too long a hose. We disconnect the picker and put it away.

QUESTION: Do you use the same type of picker in the card room as in the spinning room?

MR. McDOWELL: We have two different types. In the card room we found we could use one with lower air pressure. We found with using this we can use less pressure of

air and it causes less vibration and runs better. In the spinning room we use the other type.

QUESTION: What does the operator do with the equipment when he is not using it? Does he lay it down on the floor?

MR. McDOWELL: It depends on the operator. Sometimes he just lets it hang over his shoulder.

MR. HORNER: He picks the rolls while the frame is running, doesn't he?

MR. McDOWELL: We pick them both ways. It is best to pick them while they are running, but if you pick them every week you can do it while the frame is standing. Then when it starts running you may have a few ends down, and it is a good plan to start slow and pull the ends through, because that will save a little bad work.

MR. HORNER: How about the spinning?

MR. McDOWELL: In the spinning they have so many sides to pick, and that girl does so many sides a day.

MR. HORNER: The spinner does not pick?

MR. McDOWELL: No, sir, we have others to do it.

MR. HORNER: Can you get to the bottom rolls of the Whitin with it?

MR. McDOWELL: Yes, sir.

CHAIRMAN MARLEY: Do you find you have to oil your rolls more often if you use this roll picker?

MR. McDOWELL: No, sir, we do not have to oil them more often. I believe we get cleaner yarn by using the roll picker, although you can let the roll picker dirty the yarn if you want to. But I believe we get cleaner yarn, because it keeps the lint off the bottom steel roll. That lint seems to absorb the grease, and by keeping the lint cleaned off you get rid of that dirty grease.

Textile Research Setup Explained By Official

Under terms of the 1946 Agriculture and Marketing Act, the Agriculture Department will contract with textile mills and private research organizations for specific projects only if these tasks "can be performed more effectively, more rapidly, or at less cost" than they could be carried out by regular government research facilities. E. A. Meyer, administrator of the new program, explained recently. Under Section 10 (A) of the 1946 law, he pointed out, the Secretary of Agriculture may complete private research contracts on the development and application of present, new and extended uses of farm commodities, including cotton and wool. Particular emphasis will be put on "foods and fibers for which our capacity to produce exceeds, or may exceed economic demand," he added.

Before a textile mill might get a cotton utilization project, sponsoring department officials would have to present: (1) A statement as to the qualifications of the organization and the reason for its selection. (2) If a performance bond is required because of making advance or progress payments, the executed bond would have to be submitted with the contract.

In addition, new patents resulting from the research work carried on in private laboratories under the co-operative program would have to be assigned to the government. All interested parties could then use them.

Soon after the American Revolution the legislatures of Maryland, Virginia and South Carolina offered premiums for the making of cotton cards to encourage cloth making.

TOP NAME IN ROLL COVERINGS

LAWRENCE

Spinna Calf



It's Better Naturally



NO MORE "SOFT NOSED" LAPS

Patent No. 2,018,063

WITH
ROCKERHEAD CALENDAR
RACKS OR LOGGERHEADS
FOR PICKERS

Here is a device that assures more efficient production with a minimum of waste. No more soft-nosed laps... each lap is firm, being 2 to 4 inches smaller in diameter. Self-aligning head insures seating of rollers on lap pins and will not wear rollers cone shape.



Equipped with Fafnir ball bearings. Safety Release Pin.

Designed for use on Kitson, Saco-Lowell, Whitin, and Potter and Johnson Pickers.

IMMEDIATE DELIVERY

Manufactured exclusively by:

ACME MACHINE & TOOL CO.

2601 Wilkinson Blvd. — Tel. 4-5633 — Charlotte, N. C.

(NO OTHER COMPANY IS LICENSED TO MANUFACTURE THIS DEVICE)

May Be Losing Fight To Ban Jap Textiles

Reports from Washington indicate that American cotton textile manufacturers appear to be staging a losing battle to keep Japanese-made cotton goods from entering this country to compete with American cotton textiles. A special delegation headed by Dr. William P. Jacobs of Charlotte, N. C., president of the American Cotton Manufacturers Association, met with Under-Secretary of the Army William H. Draper and members of his staff Nov. 7 to consider the problem. It is believed they were told the government was determined to proceed with its plan, and were asked to co-operate rather than fight the operation. However, it was reported that the textile manufacturers have not given up their effort to keep all Japanese cotton textiles out of the United States. Accompanying Dr. Jacobs were C. C. Hertwig, Bibb Mfg. Co., Macon, Ga.; Hearn Swink, Cannon Mills Co., Kannapolis, N. C.; Sam H. Swint, Graniteville (S. C.) Co.; and Maj. Charles Caffrey, Washington representative of the A. C. M. A.

Allied headquarters in Tokyo, in recapitulating the Commodity Credit Corp. cotton program for Japan, revealed that Japan received 905,000 bales of cotton from the United States between June, 1946, and October, 1947. From the cotton, 330,000,000 pounds of yarn and 705,000,000 linear yards of fabric were produced. About 80 per cent of the imported cotton was processed, it was explained, for export to such textile-short nations as Burma, Ceylon, Australia, the Anglo-Egyptian Sudan, Belgian Congo and the United Kingdom.

Cotton-Textile Institute Distributes Book

The fourth edition of *Cotton From Raw Material to Finished Product*, long regarded as the official guidebook of the cotton textile industry, is now being distributed by the Cotton-Textile Institute. Featuring 122 swatches of staple gray and finished cotton fabrics, together with a number of cloths illustrating the newest cotton finishes, the book also contains up-to-date data on all phases of the industry's operations. Statistical tables show the gain in the productivity of the average spindle since 1922, production of the principal classes of goods for each year since 1921, active spindles and cotton consumption since 1900, looms since 1914, world production of cotton since 1900, and income and deficits of cotton mills for the 1916-1944 period. Special chapters are devoted to discussion of the qualities and characteristics of cotton, developments in the mechanization of cotton farming, spinning, weaving and finishing processes and the increased uses of cotton.

In a section dealing with cotton's future, the book states, "The cotton textile industry now emerging from the crucible of the war and reconstruction years is vastly different from what it was less than decade ago. From its notable achievement in the war years the industry has drawn an assurance and a confident belief in its future. Reflecting this intelligent optimism are the moves already made by cotton mills, individually and collectively, to strengthen the foundations of the entire industry.

"Factors likely to exert a profound influence on the foreseeable future of the industry are these: (1) Mechanized farming of cotton. The trend toward increased mechanization of cotton agriculture is speeding up. Within the next decade, most cotton plantations will be equipped with mechanical pickers and choppers, and flame weeders which

combined should reduce the cost differential between American and foreign growers. (2) The sharp expansion in fundamental and applied research throughout the industry. (3) The development of new machinery and new processes, new products and new finishes. (4) Increased attention to public relations by the industry and individual mills. (5) The perfecting of new sales devices, the streamlining of distributive methods and the impressive growth of coordinated industry-wide promotion of all cotton products. (6) The development of new outlets in the apparel, industrial and home furnishing fields. (7) Sharp expansion in exports. Since 1941, the American cotton industry has been the world's largest exporter of cotton cloth and yarn. 1947 exports are running at three times the volume of 1939."

A totally new idea in electric bed coverings, an electric sheet, has been announced by Westinghouse Electric Appliance Division, Mansfield, Ohio. The electric sheet is identical in operation to the warming sheet in the Westinghouse electric comforter, a de luxe electric bed covering. The new product is made of neutral-colored muslin and is 70 inches wide by 84 inches long and has a heated area 54 inches by 70 inches to cover the top surface of a standard double bed. An 11-inch non-heated area is provided at the foot end to provide for a tuck-in.

The element wires in the warming sheet are permanently stitched to the sheet by the same technique used in the manufacture of the electrically heated high altitude flying suits of the Army Air Corps. Positive protection, when the electric sheet is in use, is provided by a number of small bi-metal strip thermostats built into the sheet.

New Plexon Yarn Being Produced

A unique new yarn destined to meet demands for fire-retardant decorative fabrics, upholstery and draperies has been announced by Plexon, Inc., New York City. The new Plexon is fire-retardant and self-extinguishing. It is a basic synthetic yarn with such other features as being immune to oil, grease, mild acids, mildew and rot. It is impervious to weather, is color fast and fadeproof, the company claims.

Forty-five colors are available in many sizes ranging from .007 to .030 of an inch in diameter. Automobile seat coverings woven of the new Plexon are already in production, according to the company, which is also working on much finer yarns for such uses as table linens. The new yarn is produced at the Plexon, Inc., plant in Greenville, S. C.

British Nylon, Rayon Output At Peak

More than 18,000,000 pounds of rayon and nylon were produced in the United Kingdom in July, the highest output ever recorded for any month. This is the first time that production has topped the 18,000,000 mark. The next best figure of approximately 17,500,000 was achieved in January, 1947, but the fuel cuts of the winter emergency resulted in a substantial fall in February to less than 13,000,000. The following months showed a remarkably swift recovery. Even in March, output of close on 16,000,000 pounds was achieved—1,500,000 more than the 1919 average. The bulk of this yarn goes to British mills, but a proportion is reserved for export; in the three months of April to June, more than 3,000,000 pounds of rayon yarn went overseas.

"BIG FIRES from little blazes grow"

Every costly fire started as a small flame that could have been quickly smothered with a

STOP-FIRE

The MODERN Extinguisher that Operates INSTANTLY With a "Twist of the Wrist"

Ejects a 20 ft. to 30 ft. spray of fire extinguishing fluid that converts immediately to heavy gas. With the aid of the hose, you may spray the fluid in any direction. The fluid consists of carbon tetrachloride and carbon dioxide scientifically blended to produce a more effective fire extinguishing agent. The fluid is effective for years.

NO OTHER EXTINGUISHER HAS ALL THESE FEATURES

- SHELL—Seamless deep drawn—heavy gauge.
- MATERIAL—Red Brass—85-15 mixture.
- JOINTS—All joints silver brazed.
- VALVE—Positive sealing needle type.
- PRESSURE GAUGE—Easily read gauge indicating amount of stored pressure.
- EXTINGUISHING FLUID—Scientifically combined carbon tetrachloride and carbon dioxide.—● Non-Freezing Type.

STAIN PROOF • NON-CORROSIVE • NO MOVING PARTS • PRECISION MANUFACTURED • LIGHT IN WEIGHT

STOP-FIRE Extinguishers Are in Use in Many of the Larger Mills of the South.

UNION STOP FIRE CORPORATION

127 ASHLAND PLACE

Subsidiary of Union Parts Mfg. Co.

BROOKLYN, N. Y.

L. B. McWILLIAMS

2104 WILMORE DRIVE

PHONE 3-7424

CHARLOTTE, N. C.



Available in 1 qt. and 2½ qt. sizes



Approved by the Fire Underwriters Laboratories, Inc.

TODAY and Every Day

IT'S QUALITY THAT COUNTS

Quality, backed by 71 years of "know-how" in technical developments. Process Compounds for all types of synthetic and natural fibers produced under modern standards for A-1 quality and efficiency. We solicit inquiry

For Value... Investigate

TINTINOLS & MINOTINTS

Static Control plus 18 Colors

MINEROL

The Original Conditioner

RAYON PROCESS OILS

SS BASE OIL

BRETON OILS FOR WOOL:

XX SAPONIFIED, RER, SS.

MEON

Inhibitor and Stabilizer

Twist Setter and Strengthener

BORNE SCRYMSER COMPANY
Originators of the BRETON MINEROL PROCESS
for Fiber Conditioning
ESTABLISHED 1874

ELIZABETH, N. J.

NEW ENGLAND REPRESENTATIVES
A. M. KNIGHT
West Yarmouth, Mass.

W. M. DYNES
West Springfield, Mass.

S. T. DOUGLAS, JR.
Westwood, Mass.

SOUTHERN REPRESENTATIVES
JOHN FERGUSON
LaGrange, Ga.

R. C. YOUNG, Mgr.
Charlotte, N. C.

W. E. SMITH
Charlotte, N. C.

Rayon Shipments In October Show Increase

Rayon yarn and staple shipments in October amounted to 84,500,000 pounds, an increase of three per cent above shipments in September and 12 per cent above the corresponding month last year, according to the November *Rayon Organon*, statistical bulletin of the Textile Economics Bureau, Inc., New York City. Shipments of yarn and staple in the first ten months of 1947 totaled 780,800,000 pounds, 11 per cent more than shipments in the corresponding period of 1946 and 23 per cent more than in the first ten months of 1945. Deliveries of filament yarn in October totaled 63,400,000 pounds, a rise of three per cent above the previous month and six per cent over October, 1946. Filament yarn shipments comprised 43,800,000 pounds of viscose-cupra, and 19,600,000 pounds of acetate. Ten months' shipments of viscose-cupra yarn were up six per cent above 1946; acetate shipments showed an increase of 17 per cent. Staple fiber shipments including tow in October amounted to 21,100,000 pounds, an increase of four per cent over the preceding month and 34 per cent over the corresponding month in 1946. Viscose-cupra accounted for 15,600,000 pounds and acetate 5,500,000 pounds. Filament rayon yarn stocks in producers hands at the end of October totaled 5,600,000 pounds of viscose-cupra and 2,500,000 pounds of acetate. Staple fiber stocks held totaled 6,500,000 pounds.

Domestic rayon production has attained record proportions in each of the last five consecutive quarters, it is pointed out by the *Organon*. In the July-September, 1947, period, the output amounting to 246,500,000 pounds was four per cent above the previous record established in the second quarter and 151½ per cent above the third quarter 1946 production. In the first nine months of 1947, production totaling 714,400,000 pounds exceeded the output in the corresponding period of 1946 by 12 per cent. Imports of rayon staple fiber in September amounted to 3,257,000 pounds, an increase of 34 per cent over the preceding month and 36 per cent more than was imported in September, 1946. The countries sending the most staple to the United States in September were France with shipments of 973,000 pounds, followed by the Netherlands with 783,000 pounds, Finland 628,000 and Sweden 603,000 pounds. Total rayon staple imports for the first nine months of the year amounted to 31,976,000 pounds, 40 per cent more than in the corresponding period last year. Third quarter imports amounting to 8,012,000 pounds augmented domestic viscose production of 43,800,000 pounds and acetate output of 13,800,000 pounds to make a total of 65,612,000 pounds of staple fiber available in the July-September period.

Domestic shipments of filament yarn to the textile and tire trades in the third quarter reached new high levels, according to the *Organon*. The textile trades received 128,600,000 pounds and tire manufacturers got 57,800,000 pounds. In the first nine months of the year, yarn shipments to all textile trades were ten per cent above deliveries in the same 1946 period, and shipments to tire manufacturers were up seven per cent. In the individual textile trades, third quarter deliveries showed the following percentage changes as compared to the previous quarter: fashioned hosiery, minus 63 per cent; seamless hosiery, plus one-half per cent; circular knitting, plus three per cent; warp knitting, minus two per cent; broad woven, plus 11½ per cent; narrow woven, minus five per cent; and miscellaneous

uses, plus $5\frac{1}{2}$ per cent. Exports of rayon filament yarn by producers in the third quarter amounting to 4,600,000 pounds were the highest since the third quarter of 1945. In relation to total shipments by domestic producers, however, the exports in the third quarter made up only $2\frac{1}{2}$ per cent of the grand total of deliveries.

Finland Enters U. S. Textile Products Field

Finland, the war-torn but proud little Scandinavian country, has made its entry into the American textile products field. The Finnish-American Trading Corp. recently opened a New York office with a two-fold plan—to spend the proceeds of loans totaling \$30,000,000 to buy textile and other machinery here, and to survey the American market and create new outlets for their textile, furniture, wooden ware and glass products. Trade sources agree that textile and furniture manufacturers will not view with alarm the influx of Finnish products because of the limited ability of their factories to turn out these products. Instead, most agree that Finland's energetic effort to recover from war and Russian reparations sets a bright example for other foreign countries who haven't bothered to even keep up their war loan installments. Export-Import Bank officials have promised to help finance private exports to Finland up to \$5,000,000. The credit is granted to American exporters if they themselves grant credits on their shipments amounting to 25 per cent to 50 per cent of their selling price.

Safety In Textile Plants Is Stressed

The contention that safety in a textile mill should be on a par with such items as production, quality and deliveries was expressed by D. S. Link, Jr., of Avondale Mills, Sylacauga, Ala., last month in an address before the textile section of the National Safety Congress, which met in Chicago for its 35th annual convention. A number of interesting speakers were heard during the textile session with papers being presented by E. A. Roberts of American Mutual Liability Insurance Co. on "What the American Standards Association Textile Code will mean to Your Program;" R. W. Laughlin of Liberty Mutual Insurance Co. on "New Ideas for Mechanical Interlocks in the Textile Industry;" Joseph Tiffin, Purdue University, on "Fitting the Worker to the Job;" Forrest H. Shuford, Department of Labor of North Carolina and an open forum on "Problems in the Synthetic Fiber Industry," lead by J. D. Brown of the American Enka Corp.

WET PROCESSING AGENTS

BURK-SCHIER

FOR EVERY TEXTILE APPLICATION

BURKART-SCHIER CHEMICAL CO.
CHATTANOOGA, TENNESSEE

MANUFACTURING CHEMISTS FOR THE TEXTILE INDUSTRY



For a Finish that takes the Prize

DESIZE with EXSIZE

SCIENTIFIC TESTS demonstrate that this concentrate of natural enzymes will desize hundreds of yards of cotton or cotton mixed cloth for only a few pennies.

More important, however, is the fact that Exsize can successfully tackle the toughest finishing job leaving fabrics supple, elastic, soft . . . with a good "hand." Yes, Exsize is consistently uniform and dependable.

Why not have our Pabst Technical man check with you on your desizing problems. He'll be delighted to help you solve them either in our laboratories or your own mill.

WRITE FOR FREE BOOKLET



Co. 1947.
Pabst
Brewing Company,
Milwaukee, Wisconsin

PABST
SALES COMPANY
CHICAGO, ILLINOIS

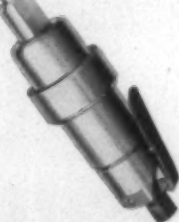
Warehouses at Jersey City, and Textile
Warehouse Company, Greenville, S. C.



KELLER PNEUMATIC ROLL PICKER

Quick Way TO CLEAN ROLLS

This fast-moving air-operated Picker Motor removes loose lint from cotton spinning machinery. Just insert the rod between rolls of spinning frames while machines are running. Lint gathers around the revolving rod. 6- and 9-inch rods. Exhaust air deflects away from work. Send for details.



KELLER

Pneumatic Tools

Keller Tool Co., Grand Haven, Mich.
Marcus Bailey, 117 S. 21st Street, Birmingham 3, Ala.
Oliver D. Landis, 718 Queens Road, Charlotte 4, N. C.



For over 80 years, we have been furnishing industry and municipalities with dependable elevated steel tanks. We design, fabricate, and erect, in capacities from 5,000 to 2,000,000 gals., with hemispherical, ellipsoidal, or conical bottoms.

Write for prices, stating capacity, height to bottom, and location.

R.D. COLE MFG. CO.

Newnan Ga. ESTABLISHED 1856



Advisers Say Cotton Short Of Aid Needs

If Europe gets the 2,500,000 bales of cotton it wants from the United States in this crop year, President Truman's economic advisers cautioned that cotton and textile supplies would be short, prices rise, and export controls—possibly even the allocation of cotton among American mills—would be necessary. "The supply of raw cotton is not adequate to meet both foreign and domestic requirements this year; hence the rise in price may be considerable," stated the 19-man Harrison committee in its report Nov. 8 on European recovery and American aid.

A suggestion that raw cotton, rather than cotton textiles, be bought with whatever aid the United States extends to finance exports of cotton to Europe was offered by a subcommittee on consumer goods, which added this warning note: "Some co-ordinated administration of the exports of raw cotton and cotton textiles, which could limit the amount of exports and decide between the amounts exported in each category might have to be combined with some system for allocating stocks of raw cotton among domestic mills." The subcommittee said "it is obvious that either American or foreign production of raw cotton must be expanded substantially during the next four or five years" if world mill production is to be maintained at even its present level.

Industrial Uses Of Rayon Expanding

Industrial applications will soon call for even greater quantities of rayon than they consume today, it is suggested by scientists of the textile research department of American Viscose Corp., Marcus Hook, Pa., scene of many important rayon developments. The biggest industrial consumer, of course, is the tire industry, which today takes a fourth of all U. S. rayon production. Rayon cord tires have become standard for trucks, buses, airplanes and large passenger cars, and most of the rubber companies have announced they will make rayon cord tires in all tire sizes as soon as they can get enough rayon.

Meanwhile, the rubber companies are extending the use of rayon fabric to a variety of other rubber goods, such as fan, conveyor and transmission belting, low and high pressure hose, diaphragms for compressors and as lining in overshoes. Rayon yarn is braided into packing for pumps, and flexible and macaroni type protective tubing for electric wire and cable. Rayon cord and rope are manufactured to a limited extent for special applications and where appearance is a prime factor. For some time rayon has been used as a carrier fiber in the manufacture of asbestos rovings and yarns, to provide extra strength and added asbestos pickup. The uppers of many sport shoes and some Venetian blind tapes are made of woven rayon fabric. Large quantities of rayon fabric are consumed by the automobile industry for lining and upholstery.

One of the newest and most promising industrial uses of rayon is in non-woven fabrics. These are fibrous webs of viscose rayon staple, to which a bonding agent such as resin emulsion, latex, viscose, mineral acid or a plastic fiber such as Vinyon resin or plasticized cellulose acetate rayon has been added by spraying, dipping, padding, printing or otherwise blending with the non-adhesive viscose rayon fibers. The bonding agent may be applied in bands or stripes or as an over-all uniformly distributed material depending on the characteristics desired. Disposable place mats, napkins and towels, which actually can be used sev-

eral times, are among the many practical articles made of non-woven rayon fabrics. Others are disposable diapers, gift wrappings, ribbon, tape, interlinings for men's and women's suits, casket linings, tea bags, filters, wall and table coverings. Coming soon are one-season draperies and window curtains of non-woven rayon.

Rayon flock, which is filament cut into standard short lengths of from 1/2 mm. to 1/4 inch, is used to make felt for phonograph turn tables and lining the glove compartments of automobiles. By electro-static means, a beater bar or simply spraying, flock is attached evenly with a suitable adhesive, such as a plastic latex or a lacquer casein, to a backing of paper, glass, metal, wood, wall board or fabric. In this way, flock has been used to a limited extent to provide a wall covering that lasts better and is more economical than most wall papers. More general uses at present are in toys to provide the dots in some dotted swiss. It may be used wherever a pile or suede-like fabric finished is desired. Woven and non-woven rayon fabrics and fibrous rayon mats have been used experimentally in making laminated plastics. So far the price differential in comparison with paper and cotton ducks and non-availability of rayon in suitable constructions, have been major restrictions on its commercial adoption in laminated plastics. An increasing number of machined and molded articles of rayon reinforced laminated plastics are expected to be on the market soon.

Stocks Of World Cotton Are Low

The Department of Agriculture estimates world cotton stocks on hand July 31, 1947, at 17.9 million bales, a 28 per cent reduction from the revised estimate of 24.76 million bales for July 31, 1946, and 37 per cent below the peak of 28.5 million in 1945. The reduction in cotton stocks since the end of the war is attributed to two successive years of low production, while world mill consumption recovered to a level of five to six million bales above production in those years. It is reported that a further reduction of one to two million bales may be expected this year as world production (1947-48) recently estimated at about 26 million bales is still slightly below the current level of world consumption.

Two thousand bales of cotton were used in the huge conveyor belt that moved a mountain of gravel more than 9 1/2 miles to the site of Shasta Dam.

MANUFACTURING

Industrial Chemicals
Sulfonated Oils
Wetting Agents
Warp Sizings
Industrial Paints
Soaps

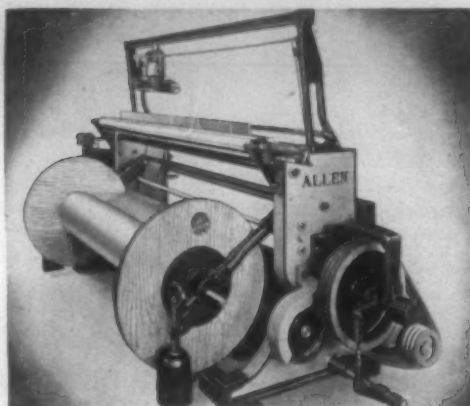
Moreland CHEMICAL CO. INC.
Spartanburg, S.C.

CHEMISTS

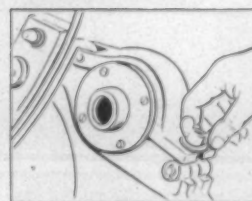
ALLEN Cotton Warper

Model "C"

See how it doffs
in 30 seconds



A few turns of beam doffer crank depresses ball bearing beam arm and lowers beam to floor.



Releasing wing nut frees beam by permitting ball bearing to slip off shaft ends.

1. Speeds up to 700 y. p. m.
2. Electric stop motion.
3. Beam doffing device. (see above)
4. Automatic lint cleaner for preventing collection of lint in combs and yarn.
5. All adjustments made on outside of Warper.
6. Adaptable for use with any make of creel.
7. Motor and V-belt drive with silent chain and sprockets.

"Good Warps are made on Good Beams"

8. Efficient braking device.

9. Ball bearings throughout.

Allen KXR Cotton Warper Beams balanced for speed and for running on our Warpers to make a perfect Beam.

★
Cotton and Rayon Beam
Warpers
Ball Warping Machines
Narrow Fabric Warpers
Intermediate Dresser
Stand for Woolen and
Worsted Warp Yarns
Expansion Neck Reeds
All types of Expansion
Warper, Beamer and
Slasher Combs
Replacement parts for
Saco-Lowell and Entwistle
Warpers
★



**ALLEN
COMPANY**

General Offices:
136 River Road
New Bedford, Mass.

Representatives in all
Textile Localities and
all Principal Countries
of the World.



**FOR OVER 65 YEARS
THE FINEST QUALITY**

**SOLVAY
PRODUCTS
FOR THE
TEXTILE
INDUSTRY**

Ammonium Chloride
Caustic Potash
Caustic Soda
Liquid Chlorine
Potassium Carbonate
Soda Ash
Sodium Nitrite
Calcium Chloride

SOLVAY SALES CORPORATION • Alkalies and Chemical Products Manufactured by The Solvay Process Company
40 Rector Street, New York 6, N. Y.

VOGEL No. 14 SOUTHERN OUTFIT

**A durable, economical closet
for Mills, Factories and all
types of industrial installation**



When installing No. 14
closet trap must be
set directly under bowl.

The Vogel No. 14
has a vitreous china
top supply bowl,
heavy flush valve,
reinforced hard-
wood seat, painted
white enameled
drum shaped tank
and union ell flush
connection.

*(The Number 14
is not frost-proof)*

**Joseph A. Vogel
Company**

Wilmington 99 • Delaware

VOGEL PATENTED PRODUCTS

Industrial Hygiene Services Available

Operations involving the use of volatile solvents, unless properly controlled, may expose workers to health hazards. Governmental industrial hygiene agencies in almost every state can assist plant managers in making the solvent department and other potentially hazardous departments safe places to work. The service, available at no cost from these agencies, is likely to be particularly helpful to small plants which have no safety or industrial hygiene departments of their own. Consultation on the department layout, equipment and operation is available from these agencies. Also, workmen sometimes develop symptoms of occupational illness when there is no obvious source of trouble in the working environment. In such instances, engineers and physicians from the industrial hygiene service can help to detect and correct the cause.

The industrial hygiene division of the U. S. Public Health Service, which has its headquarters in Washington, D. C., is the national agency responsible for the protection of workers' health. Consultants representing the division are stationed in Public Health Service district offices throughout the country. Direct service to industry is rendered by state bureaus of industrial hygiene, which are located in state departments of health except in Massachusetts and New York, where they are part of the labor departments. A number of cities also have municipal industrial hygiene divisions. Typical services offered include:

Chemical—Analysis of the solvent to determine its composition (where this is not indicated on the container). Analysis of the workroom air to determine whether the air is being kept sufficiently safe.

Engineering—Survey of engineering controls; consultation on the design or improvement of ventilating systems and on personal protective clothing and respirators.

Medical—Survey to determine whether workers show signs of exposure to solvents or other toxic materials; assistance in setting up a medical and nursing service suitable for the size of plant involved; assistance in planning an effective health program with adequate records.

Educational—Lecturers who will advise workers and management on such matters as the safe methods of handling solvents and the use of safety equipment.

German Fiber Research Activities Described

Wartime fiber research activities in Germany, Austria, Italy and England are described in four reports now on sale by the Office of Technical Services, Department of Commerce. The reports were prepared by O. T. S. investigator Kyle Ward, Jr., head of the cotton research division of the U. S. Department of Agriculture. Information on fiber and cellulose plants, products, and processes and a number of bibliographies are contained in the reports. The reports are:

PB-7755 (*Study of Use of Other Materials Than Wood or Cotton As Sources of Cellulose*; 22 pages; mimeographed, 75 cents). Straw cellulose pulp, manufactured by the Phrix-Gesellschaft, Wittenberge as a source of cellulose was the only successful use of straw, according to the report. At Wittenberge there was a chain of three plants: a straw pulp plant, a staple fiber plant operating on the pulp, and a food yeast plant utilizing the liquors from the pulp plant. A two-stage pulping process included acid hydrolysis for the pentosans and a sulfite cook. Many companies experi-

mented with *Arundo donax* as a source of cellulose but the only plant that carried on production (until destroyed by bombing during the war) was that of Snia-Viscosa at Toresuino, Italy. The pulp was produced by a special bisulfite process and was used by the various plants of the Snia-Viscosa chain. Processes of pulping are described, and comments from other sources given. The following materials are discussed as sources for cellulose: *Pbragmites communis*, rape straw, bast fiber waste, potato vines and other materials. Miscellaneous information on companies visited includes data on the regenerated fiber industry, cellulose acetate firms, nitration plants and hydrolysis of cellulose. Names and addresses of firms visited in Austria, Germany and Italy are listed. Special attention is given to Alex. Wacker Gesellschaft fur Elektrochemische Industrie and the Wacker cellulose acetate process. An extensive list of products manufactured at the Burghausen plant are presented. Visits to the I. G. Farbenindustrie Domagen plant manufacturing cellulose acetate, to the research group at Weinheim (displaced from Ludwigschafen), the Lonza-Werke at Waldshut, and the Lonzons, A. G. at Sackingen, are described at length. A bibliography is included.

PB-1309 (*Zellwolle-Lehrspinnerei, Denkendorf, Germany*; ten pages, mimeographed, 25 cents). The plant, designed as a research institute for the entire staple fiber industry, is equipped with 5,000 cotton and 2,000 wool spindles, and a testing laboratory, according to the report. The institute possessed a collection of very good photomicrographs of all German staple fibers as well as of many natural and foreign fibers. Two sets of reports on recent research, one on wool system, the other on the cotton system, are tabulated. Information on staple fibers obtained

in an interview with Mr. Bisinger, the technical director, is presented.

PB-6354 (*Scientific Research on Cellulose and Fibers*; 12 pages; mimeographed, 50 cents) reports on visits to the following persons: In Germany, Messrs. Elods, Freudenberg, Jayme, Staudinger, and Weltzien; in Austria, Messrs. Ecker, Kleinert and Kratky; in Italy, Messrs. Centola and Risso. The report concludes that the research carried on by major investigators has, in general, followed the lines these men had already established for themselves. Much of it has not been published and publication in full detail would be distinctly to the advantage of American science and industry, the author states. A five-page bibliography is included.

PB-22415 (*Shirley Institute, Manchester, England*. Eight pages; microfilm, 50 cents, photostat, \$1). Information about the Shirley Institute supported by the British Cotton Industry and concerned with every stage in the manufacture of cotton fabric is presented. The institute is devoting special attention to abrasion and wear properties of rayon and is conducting some research in silk. Dr. J. C. Withers provided additional information about certain German fiber targets. Talks with individuals at the institute covered recent advances in the investigation of the oxidation of cotton cellulose, the chemical analysis of modified cottons, the dye absorption of cottons, the physical testing of cotton products, flexure and abrasion, the use of the electron microscope and the applications of the ultracentrifuge to cotton work.

Orders for the reports should be addressed to the Office of Technical Services, Department of Commerce, Washington 25, D. C., and should be accomplished by check or money order, payable to the Treasurer of the United States.

CMC WASTE MACHINE

Built in 1 to 5 Beaters

All parts are easily accessible and changeable, cutting repair time to a minimum.

Does not require Suction Fan or Dust Pit, thereby eliminating fire hazard.

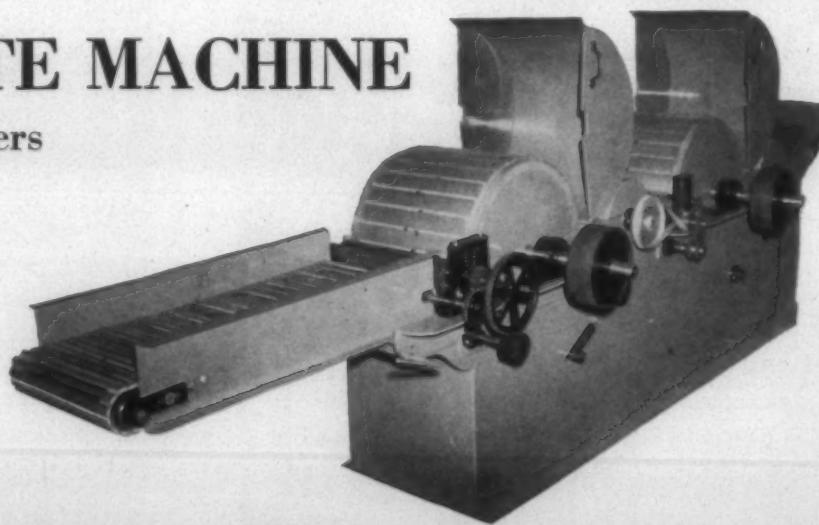
Double Reversible Feed Rolls.

Beaters 30" in Diameter, equipped with Ball Bearings and can be adjusted according to staple of your waste.

Compactly designed to require minimum floor space.

EARLY DELIVERIES

Write for Complete Details



Also Manufacturers and Distributors of

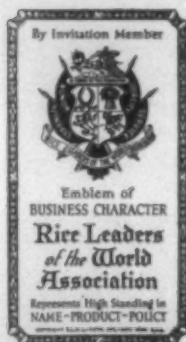
CONVEYOR TABLES • HOPPER FEEDERS • SARGENT COMBS

Carolina Machinery Company

Mail Address: P. O. Box 1922

CHARLOTTE, N. C.

Plant: Steel Creek Road



High Grade

**BOBBINS
SPOOLS
SHUTTLES**

The DAVID BROWN CO.

LAWRENCE, MASSACHUSETTS

FOUNDED IN 1883

Southern Representatives:

Greenville, S. C. Ralph Gossett and Wm. J. Moore
Griffin, Ga. Belton C. Plowden
Dallas, Tex. Russell A. Singleton & Sons
Gastonia, N. C. Gastonia Mill Supply Co.
Spartanburg, S. C. Montgomery & Crawford

LIFTER RODS FOR ALL SPINNING FRAMES — BY PRECISION

Precision Lifter Rods are made from special steel to give extra toughness and longer life. They can be extra hard chromed plated if desired. Every rod is ground to close tolerance and made to customer's specifications.

**We Specialize In
HIGH GRADE CAST IRON
LIFTER ROD BUSHINGS**

2001 N. Tryon St., Phone 4-6857, Charlotte 2, N. C., U.S.A.

**PRECISION GEAR AND
MACHINE COMPANY, INC.**

**LOW
INITIAL
COST**

**LONGER
LIFE —
— LESS
STICK-UP**

One of our men can arrange to see you at your convenience, or we will be glad for you to PHONE or WIRE us, if the need is urgent.

Flockenbast Processing Methods Are Described

German methods for processing Flockenbast, a flax-like raw material suitable for cotton spinning machinery, are described in a report on the German linen industry now on sale by the Office of Technical Services, Department of Commerce. The report was prepared by investigators for the British Intelligence Objectives Sub-Committee. The cutting off of cotton supplies during the war made Flockenbast a welcome alternative to various rayon staples that were alone available for processing on cotton spinning machinery, the report states. Only in Germany has Flockenbast processing been developed on a large scale.

The material is generally made from all types of flax and hemp tow of low value, and sometimes from straw that is scutched and then cut. Many variations of the dry and wet processes used for cleaning and fiber separation are practiced but a boiling process at an early stage is common to all. Typically, at one factory the raw material is opened on an Etrich type shaker, passed over pinned cylinders, and delivered onto an included shaker. Water, soda, ash and soap boils follow. Then the material is demodurized by centrifuging, passed to an opening machine, and thence to a large drying machine. Carding, cutting and pressing for delivery to spinners complete the process. The process is elaborate for low-class material, the report states. Flockenbast can be spun only in course counts, and cannot be regarded as an economical process except in special circumstances. The finest Flockenbast fibers are coarser than Irish dam-retted flax after wet spinning and contain a relatively large proportion of long and very coarse fibers detrimental to efficient spinning. Details of the process as observed at four German firms are contained in the report.

The report provides a comprehensive survey of the German linen industry including a discussion of the following topics: flax production, spinning, weaving preparation, weaving, bleaching, dyeing and finishing, mercerizing and printing. Visits to several German firms are described in detail. Eleven pages of drawings are included to illustrate machinery and equipment found of particular interest by the investigators. "Taking the (German) linen industry as a whole," the investigators conclude, "we should not regard it as among the most progressive industries in Germany. Some of its works fall far short of the most approved modern practice; but a number of works are well equipped and well organized and have evidently been efficiently run in the past, and from these works we can undoubtedly learn something to our advantage."

Orders for the report (PB-78648; *Report on Linen Industry in Germany*; photostat, \$13; microfilm, \$4, 184 pages) should be addressed to the Office of Technical Services, Department of Commerce, Washington 25, D. C., and should be accompanied by check or money order, payable to the Treasurer of the United States.

Acetic Acid Shortage Looms In 1948

Although plant expansions will boost the total annual output of acetic acid by more than 20,000,000 pounds, producers of the product are of the opinion that it will continue on the list of chemical shortages in 1948. Future fortunes of the textile industry, which uses about 70 per cent of production either in acid form or as acetic anhydride, will determine just how scarce or plentiful the basic acid may be, it is pointed out. A textile boom in 1948 can make

the acetic acid supply situation even more acute than during 1947, while a slackening in demand for textile products could create an acid surplus, observers believe. Acetic acid production during 1947 is expected to total about 380,000,000 pounds and present plant expansions rapidly nearing completion are expected to boost output to more than 400,000,000 pounds in 1948.

Southern Mills Give Cloth For Europe

Enough cloth to make the equivalent of a quarter of a million women's dresses has been contributed to Europe's destitute by Southern textile mills, it was announced Nov. 12 by the American Cotton Manufacturers Association. The association reported that the efforts of a special committee of manufacturers have been most successful, and that the campaign, which is less than a month old, has already resulted in the pledging of approximately 750,000 yards of cloth. It was emphasized that not all of this was of the type suitable for making dresses, but that the total yardage was roughly equivalent to a quarter of a million dresses. The initial effort was made Oct. 23 when letters went out over the signatures of the special committee, composed of W. A. L. Sibley, Monarch Mills, Union, S. C., chairman; W. S. Montgomery, Startex, Beaumont and Spartan Mills, Spartanburg, S. C.; and Joe L. Lanier, West Point (Ga.) Mfg. Co., asking each member of the association to contribute on a basis of one-twentieth of one per cent of 1946 sales.

Association spokesmen stated that approximately 430,000 yards of cloth have already left mill shipping platforms for the Philadelphia warehouses from which it will be distributed to overseas ports, and that the quick response of the mills indicates that a considerable quantity of goods will reach Europe before the coming of severely cold weather. Final disposition of the material is being handled by the American Friends Service Committee, a Quaker organization. Shipments are made by the mills direct to designated warehouses in Philadelphia and the Quakers make the distribution from that point.

Association headquarters listed the following mills as having already shipped goods, or as having pledged shipment: Columbia Mfg. Co., Ramseur, N. C.; Fulton Bag and Cotton Mills, Atlanta, Ga.; Industrial Cotton Mills and Arcade Cotton Mills, Rock Hill, S. C.; Lane Cotton Mills, New Orleans, La.; Wellington Mills, Anderson, S. C.; Belle-Vue Mfg. Co., Hillsboro, N. C.; Scottdale (Ga.) Mills; Willingham Cotton Mills, Macon, Ga.; Jackson Mills, Welford, S. C.; Reeves Brothers, with plants at Spartanburg, Chesnee and Greenville, S. C., and at Rutherfordton and Bessemer City, N. C.; A. D. Juilliard and Co., with plants at Aragon, Dallas and Rome, Ga., and at Brookford, N. C.; Joanna Textile Mills Co., Goldville, S. C.; Blair Mills, Belton, S. C.; United Merchants and Manufacturers, with plants at Bath, Clearwater, Langley and Union, S. C., and at Elberton, Ga.; Erlanger Mills, Lexington, N. C.; Shelby (N. C.) Cotton Mills; Salisbury (N. C.) Cotton Mills; Norris Cotton Mills, Catechee, S. C.; Borden Mills, Kingsport, Tenn.; New Braunfels (Tex.) Textile Mills.

The proposed program of the United States Commercial Co. and the International Silk Guild, Inc., to promote the sale of Japanese raw silk products in this country, reportedly has been shelved for this year with the possibility that it will be indefinitely suspended.



IT'S SYSTEM

CEASELESSLY HENLEY pursues the search for paper sources which will represent satisfactory supply for textile manufacturers.

For rather than have merely a vast miscellany of papers in the four HENLEY sales and service divisions, we seek to specialize on the exact paper requirements which will best meet textile company needs.

Perhaps that is why HENLEY service is so highly regarded as dependable service by many of the foremost textile manufacturers in the South.

*Please Address All Inquiries
to our High Point Office*

HENLEY
Formerly —
PARKER PAPER CO.  **Company**

Charlotte, N. C. HIGH POINT, N. C. Gastonia, N. C.

Southern Paper Products Division, Asheville, N. C.

ANY
 Traverse Grinding Job,
 Sanforizer Cylinders,
 Calender Rolls, Mangle
 Rolls, etc., can be
 handled efficiently by
ROY GRINDERS.

B. S. ROY & SON COMPANY

Established 1868

Worcester, Mass.

• Greenville, S. C.

RAPIDASE

for de-sizing cottons,
 rayons and mixed goods

Assures rapid, dependable
 de-sizing.

Our technical staff always at
 your service.

WALLERSTEIN COMPANY, INC.

180 MADISON AVENUE • NEW YORK 16

Textile Industry Heads Profit Parade

Manufacturers of textile mill products set the pace for the nation's manufacturing corporations in the field of profits for the first quarter of 1947, according to a joint report of the Federal Trade Commission and the Securities and Exchange Commission. The textile manufacturers' rate of return in relation to its capital investment was 6.6 per cent. Average ratio for all companies in 21 major groups was 4.3 per cent. First quarter net income for textile mill products corporations after taxes was \$239,100,000 on net sales of \$2,267,000,000. Net operating profit was \$392,900,000; net income before federal income taxes, \$397,900,000, and cash or similar dividends paid, \$51,900,000.

Several large textile firms in recent financial statements report their earnings as follows: Beaunit Mills, Inc., reported for the six-month period ending Sept. 30, net income after income taxes of \$2,558,236 compared with \$3,473,731 for the like period of 1946. Net income for the period is equal to \$2.70 a share on 948,820 shares outstanding as against \$3.66 a share last year. For the quarter ended Sept. 30 earnings per share after taxes amounted to \$1.45 compared with \$1.75 a share for the same period in 1946. The board of directors declared a quarterly dividend of 50 cents a share, payable Dec. 1 to stockholders of record Nov. 15.

American Viscose Corp. reports consolidated net earnings of \$5,843,581 for the quarter ending Sept. 30, 1947, equivalent, after preferred dividend requirements, to \$2.71 per share on 2,047,854 shares of common stock outstanding. These earnings compare with \$2,050,229 for the third quarter of 1946 or 98 cents per share of common stock based on the average number of shares outstanding during that period. The consolidated net earnings of \$14,549,382 for the nine months ending Sept. 30, 1947, are equivalent, after preferred dividend requirements, to \$6.67 per share of common stock outstanding. These earnings compare with \$8,149,612 for the corresponding period of 1946 or \$4.16 per share of common stock based on the average number of shares then outstanding. Additional charges of \$1,200,000 to operations were made in the third quarter of 1947 to provide for anticipated early obsolescence of certain plant facilities. These charges, including \$1,000,000 for inventories, for the nine months ending Sept. 30, 1947, totaled \$4,600,000. The net sales for the first nine months of 1947 were \$144,866,811 as compared with \$98,064,995 for the corresponding period of 1946, an increase of 48 per cent. Dividends declared and paid during the nine months ending Sept. 30, 1947, were \$3.75 per share on the five per cent cumulative preferred stock and \$1.50 per share on the common stock.

Directors of Textron, Inc., Nov. 5 declared a dividend of 50 cents a share on its common stock payable Dec. 31, 1947, to stockholders of record Dec. 5, 1947, bringing total dividends declared on this stock to \$1.00 for the year. Consolidated net profit after taxes of Textron, Inc., and subsidiaries, including Textron Southern, Inc., for the nine months ended Sept. 27, 1947, after deducting earnings applicable to minority interests of \$436,000 and after appropriations of \$1,000,000 to reserve for contingencies amounted to \$4,048,000, equal after preferred dividends to \$3.51 per share on the common stock outstanding on Sept. 30, 1947. Net sales for nine months were \$89,566,000 after excluding intercompany and interdivisional sales. Comparable figures for 1946 are not available in view of the acquisition of Textron Southern, Inc., and Nashua Mfg.

Co. during 1946. Of the warrants to purchase 115,468 shares of common stock at \$8.75 per share which were outstanding Dec. 28, 1946, warrants for 113,748 shares were exercised prior to the expiration date Sept. 30, 1947, so that the outstanding shares of common stock at Sept. 30, 1947, had increased to 1,132,631 shares. In addition the regular quarterly dividend of 31¼ cents a share was declared on the convertible preferred stock, payable Jan. 1, 1948, to stockholders of record Dec. 5, 1947.

The estimated consolidated net earnings of United Merchants and Manufacturers, Inc., for the three months ended Sept. 30, 1947 (the first quarter of its fiscal year), were \$4,874,473 equivalent, after preferred dividends, to \$1.23 per share on the 3,903,001 shares of outstanding common stock. These earnings include Argentine subsidiaries' earnings amounting to \$712,131, which are not currently available to the parent company because of prevailing exchange restrictions. Dividends received from unconsolidated companies and included in net earnings totaled \$253,659. This was \$59,738 in excess of the parent company's equity in their earnings for the same period. The quarter's earnings compare with estimated consolidated net earnings reported for the three months ended Sept. 30, 1946, of \$5,264,727, equivalent to \$1.33 per share on the shares now outstanding.

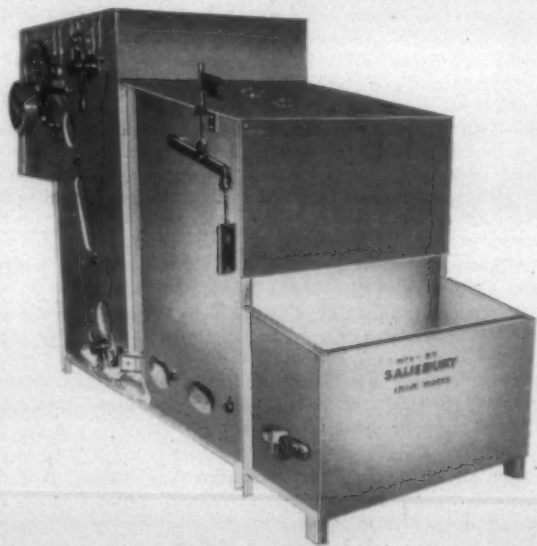
Reeves Bros., Inc., reports for the three months ended Sept. 30, 1947, a net profit after taxes of \$761,630, equal to 67 cents a share. This compares with a net profit of \$979,182, or 86 cents a share, in the like 1946 quarter. Net for the September quarter of last year included \$109,205 special credit of state franchise tax of previous years. Net

sales for the three-month period totaled \$13,895,615, as against \$13,027,736 for the same 1946 period. The company also issued a report for the 12 months ended Sept. 30, 1947, which showed net sales of \$49,892,945 and a net profit after taxes of \$3,911,497, equal to \$3.44 a share. No 12-month comparative figures were given.

Net sales of \$100,478,879, the largest in the history of the company, were reported by West Point (Ga.) Mfg. Co. for the fiscal year ended Aug. 30, 1947. Volume for the preceding fiscal year amounted to \$58,851,759. Combined operations of the company and its subsidiaries resulted in a net profit for the year of \$13,251,664, or more than double the \$5,510,881 net earnings of the year ended Aug. 31, 1946. The \$13,250,000 net was after a provision for federal and state taxes of \$10,147,887. Profit before taxes, contingency reserve and minority interests was \$25,339,284, as against a profit before taxes of \$10,360,675 for the previous year.

Net sales for the year ended Aug. 30, 1947, of Lanett (Ala.) Bleachery & Dye Works totaled \$6,718,087. Net profit for the year was \$763,351. For the preceding fiscal year ended Aug. 31, 1946, the company reported net sales of \$6,825,530, and a net profit of \$769,111. West Point Mfg. Co. owns 50.2 per cent of Lanett, although the latter company is not a consolidated subsidiary of West Point.

Directors of Industrial Rayon Corp., Cleveland, Ohio, at a meeting Nov. 14 declared a dividend of 75 cents per share on common stock of the corporation, payable Dec. 12, 1947, to shareholders of record Nov. 25, 1947. This places the common stock of the corporation on a three dollar (\$3.00) per annum dividend rate.



**MODEL S BF-1
ALSO MODEL F-5**

Loom Beams

SALISBURY IRON WORKS, INC.
SALISBURY, N. C.

SALISBURY ENCLOSED BLENDING FEEDER

Model S BF-1 Salisbury Enclosed Cotton Blending Feeder is used for the processing of cotton, wool, and synthetics.

This machine has been designed by textile engineers long experienced in the development and operation of machinery for the textile industry. Salisbury Blending Feeders are precision manufactured of the finest quality materials and workmanship to render long and dependable service with a minimum of maintenance and operational cost.

GENERAL SPECIFICATIONS

The Salisbury Enclosed Blending Feeder has a heavy fabricated steel frame which makes it a rugged, durable, and trouble free unit. All gears and chains are covered with guards for safety.

Oilite bronze self-aligning bearings are used throughout, eliminating oil leakage and assuring clean fibres.

Provisions are made for the installation of automatic sprinkler head and vacuum lines. All usable waste fibres may be reclaimed from waste container.

Salisbury Blending Feeders are designed to allow installation of kick-off roll or combing attachment.

The machine may be used in a blending line or in combination with a picker.

This model is provided with ample storage space. This facilitates better blending of various fibres and requires less attention from the operator.

Model S BF-1 as shown is equipped with a lower or front apron which extends outside the storage chamber of the machine and has a small bin into which the raw material is placed by the operator. It is then carried into the storage chamber on the conveyor apron. This model also has a combing attachment as standard equipment.

This machine is manufactured of the finest material and workmanship and has proven its worth by satisfactory, trouble free operation.



For Textiles

CHEMICALS
OILS, SOAPS
FINISHES
AND
SPECIALTIES

Ray Chemical Company

2316 SOUTH BOULEVARD
P. O. BOX 3127
Charlotte 3, N. C.
PHONE 3-8620

LAMBETH PRODUCTS FOR SPINNING, TWISTING, SPOOLING, WEAVING



LAMBETH ROPE CORPORATION
NEW BEDFORD, MASS., U. S. A.

Annual A. A. T. C. C. Intersectional Contest

(Continued from Page 50) important. This led to broadening of the study in an effort to find the explanation of these results. It became evident that electrophoresis played a very minor part, if any, in the effects produced. When electrical current did affect the dyeing properties, it was largely due to a change in pH caused by electrolysis of the dye bath in the vicinity of one of the electrodes. Furthermore, dispersing agents of the non-ionic, anionic, and cationic types had a very material effect, particularly with vat color pigments.

This survey included several hundred experiments on cotton and wool fibers, using numerous direct, acid, and vat colors. These experiments were carried out under varying conditions of electrical potential and current, temperature, pH; with several types and concentrations of electrolytes, and also with different types of dispersing agents.

From an analysis of the results obtained the following conclusions appear to be justified: (1) there is no evidence that the dyeing properties of any of the direct and acid colors studied were affected by any electrophoresis (faster migration of dye ions toward the fibers of opposite charge) at the electrical potential applied in this work; (2) the dyeing properties of many direct and acid colors can be materially affected by local changes of pH of the dye bath, caused by electrolysis resulting from the application of electrical current; (3) in the range of potential and current studied, there is no evidence that the pick-up of vat color pigments is appreciably affected by the action of electrical current on the charged pigment particles; (4) some cationic dispersing agents materially increased the pick-up of vat pigment particles. It is possible, thereby, to obtain practically complete exhaustion; (5) by varying the pH of a dispersion of vat color pigment, the pick-up can be controlled from a condition of practically no color pick-up, to one of practically complete exhaustion. (The latter two are additional conclusions which might be the basis of extensive commercial development.)

To examine thoroughly the effects of dispersing agents on cotton, ten non-ionic, nine anionic, and 15 cationic agents were tested, using purified tetrabromindigo as the vat pigment in all cases. In addition to the use of the baths consisting of dispersants, pigment and water, subsequent baths were prepared which were made acid with acetic acid or alkaline with sodium hydroxide to test the effect of pH.

Dyeings made on cotton skeins showed that with both non-ionic and anionic dispersing agents present, the color pick-up was always less than with color in distilled water, brought to the same pH. On the other hand, the cationic agents appear to possess certain characteristics which yield unpredictable variations in pick-up. Nevertheless, it should be noted that, regardless of these variations, the pick-up was always greater than with non-ionic or anionic agents present. Furthermore, in some instances the pick-up was much greater than with color in distilled water brought to the same pH. On wool, the results ran parallel to those on cotton.

Seeking an explanation of these effects, the first feature examined was the chemical nature of the dispersants. Although over 500 dyeings were made in this study of dispersants, time did not permit a broad enough investigation to establish a definite relationship between chemical constitution and color pick-up. This could, to advantage, be the basis of extensive research.

The second and more promising characteristic seemed to be that of the pH of the bath, and to examine this, dispersions of the vat pigment in distilled water were adjusted by means of acetic acid or sodium hydroxide so that a series of the following pH values was developed: pH 1.65, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11. Using sulphuric acid or sodium hydroxide, another series of dispersions was prepared having pH values of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11. With cotton, at pH 11, the skein was practically white but as the pH decreased to the acid side, the depth of shade gradually increased to a maximum at pH 3. Below pH 3 the shade then decreased. With wool, at pH 11, a slight coloration developed and the depth increased as the pH dropped, being greatest at the lowest points; i.e., pH 1.65 with acetic acid and pH 1 with sulphuric acid. In each instance where the maximum depth of shade on the yarn was obtained there was practically complete exhaustion of the dye bath.

In another set of tests, six commercial vat pastes were used. Each color was run three ways, namely; with sodium sulphate, sodium hydroxide, and acetic acid in separate dye baths. The pH values of the various dispersions of vat colors containing these chemicals

were as follows: sodium sulphate, 4.80 to 8.00; sodium hydroxide, 11.30 to 11.83; acetic acid, 3.05 to 3.85.

When sodium sulphate was used, the skeins were a medium shade, with caustic soda present the skeins were all very light, while the dyeings made in the presence of acetic acid were all very much darker than those with sodium sulphate. As this extended study with vat colors progressed, it further substantiated the conclusion that the pH of the dye bath was a major factor in determining the amount of pigment color taken up by the yarn. Furthermore, it tended to verify the conclusion reached earlier in this work, that the differences noted when electrical potential was applied were due to electrolysis with its attendant local change in pH, rather than to electrophoresis.

Promise Aid In Drafting Waterproofing Rules

Representatives of textile finishers, converters and manufacturers of chemical water repellent products used on fabrics, agreed last month at Washington to help the Federal Trade Commission draft trade practice rules that will define and restrict their representations and labeling in the future. The meeting with trade representatives was called by Henry Miller, director of the F. T. C. trade practice conference division, after the commission had received a number of consumer complaints about outerwear that allegedly failed to measure up to advertised billing as waterproof or water repellent.

When asked what F. T. C. would do if industry failed to co-operate in working out trade practice rules, Mr. Miller replied, "While I would rather not use the word 'crack-down,' the situation is a serious one. Because numerous complaints have been filed as to water repellent treatments and products, the commission has decided it would be desirable to see if the matter can't be worked out on an industry-wide basis. However, if the trade practice conference procedure should fail, or the industry fail to co-operate, F. T. C. would have no choice but to resort to the more rigorous statutory procedure of bringing litigation against individual firms."

At the Washington meeting, Leonard Little of the textile service section, E. I. du Pont de Nemours & Co., New York, and W. P. Fickett, president of the Textile Fabrics Association, were selected as the first of about five members of an advisory committee which will co-operate with F. T. C. at a conference to be held in New York City soon. All segments of the industry directly concerned with water repellent treatments and processes were invited to forward suggestions as to proposed rules that will govern representations hereafter. These should be submitted to Mr. Miller for consideration and discussion and all will be debated further when the first conference is held in New York, it is reported.

Piedmont A.A.T.C.C. Unit Schedules Meetings

The Piedmont Section of the American Association of Textile Chemists and Colorists has scheduled three meetings for the first half of 1948 as follows: Feb. 7, Poinsett Hotel, Greenville, S. C.; April 3, Robert E. Lee Hotel, Winston-Salem, N. C.; and June 18, Ocean Forest Hotel, Myrtle Beach, S. C. The fall meeting in Charlotte, N. C., will be replaced by the national meeting and members were informed that they would be advised of the time and place by the convention committee.

A laminated board of cotton fabric impregnated with plastic has been demonstrated to be stronger than steel.

Smooth warps for
easy weaving

with

Laurel
RAYON SIZE*

Your rayon warps will be smoother, stronger, cleaner, more resilient and more resistant to atmospheric action if you use Laurel Rayon Size. Unlike ordinary sizes, Laurel Rayon Size penetrates and envelops the yarn—binds the filaments together. It reduces chafing and breakage, increases elasticity, equalizes variations in yarn tension. Does not shed. Removed quickly and easily in regular scour. Laurel Rayon Size gives high loom efficiency. Leaves cloth soft, smooth with good appearance and with minimum defects.

Sizers and weavers throughout the industry tell us Laurel Rayon Size simplifies and speeds the weaving process. If you are not now using Laurel Rayon Size, save time and costs by sending for a trial order today. Available for immediate delivery. Our Laboratory Technicians will gladly recommend a formula that will meet your exact requirements.

SOAPS • OILS • FINISHES

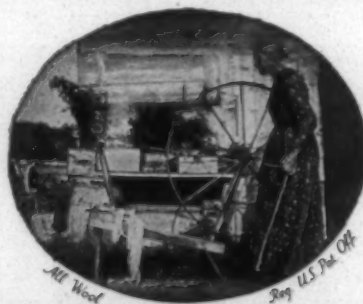
Laurel

SOAP MANUFACTURING CO. INC.

Wm. H. Bertolet's Sons • Established 1909

Tioga, Thompson & Almond Sts., Philadelphia 34, Pa.

WAREHOUSES: PATERSON, N. J. • CHATTANOOGA, TENN. • CHARLOTTE, N. C.



KNOXALL

ROLLER, SLASHER AND CLEARER CLOTH
ENDLESS BLANKETS
RAYON SLASHER JACKETS
ENDLESS REVOLVING CLEARERS

EDWARD H. BEST & CO.

EST. 1888 BOSTON, MASS. INC. 1901

ATLANTA, GA.

NEW YORK

W. C. HAMES

185 Pinecrest Ave., Decatur, Ga.
Dearborn 5974

H. W. CURTIS

735 W. Crescent Ave., Allendale, N. J.
Allendale 3521

GREENVILLE, S. C.

RALPH GOSSETT
111 Augusta St., Telephone 150

WILLIAM J. MOORE
1 Pendleton St.

SELLING AGENTS For Southern Cotton Goods

CURRAN & BARRY

320 BROADWAY
NEW YORK, N. Y.

**MERCHANDISING
CONVERTING**

★ DOMESTIC ★ EXPORT ★

Agencies in Principal World Markets

JOSHUA L. BAILY & CO., INC.
40 Worth St. New York

NEISLER MILLS COMPANY, Inc.

Selling Agents

40 WORTH STREET, NEW YORK

BOSTON CHICAGO LOS ANGELES SAN FRANCISCO



**REPAIRING
OR
LINING**

**A
PLASTIC
LINING
USED IN
PLACE OF
FIRE BRICK**



**LONGER
LASTING
BOILER
FURNACES**

"Boiler furnaces lined with CARECO last two to four times longer than those lined with fire brick. Write for quotation."

CAROLINA REFRACTORIES CO.
Hartsville, S. C.

Package Dyeing and Bleaching

ALL TYPE COLORS
ON COTTON YARNS

PIEDMONT PROCESSING CO., Belmont, N. C.

Cotton Goods Market

The strength of the cotton gray goods market in New York City continues to amaze many buyers and sellers. With all sections of the Worth Street trade showing increasing demand, a large number of executives have been forced to change opinions regarding a change in the upward climb of the market.

Where these sources had been pointing to large yardages bought by speculative interests as the real threat hanging over the market, where they had been saying that as soon as these high prices hit the retail level the fun would begin, they have now changed their minds and a number of them are expressing optimism for the immediate future.

There still are those who think this current boom in the textile industry is not going to last much longer and that mills are going to price themselves right out of the market but their numbers have dwindled.

The continued demand for fine goods has resulted in higher quotations on most staple constructions. Market sources say that spot goods are almost impossible to obtain at present, although some small second-hand sales have been reported. Most of the transactions that are being made are said to be for small quantities only.

Little easing is seen in the immediate future as buyer pressure remains strong. More and more buyers are said to be coming into the market now with urgent offers for spot and nearby goods. It is generally felt that buyers may have missed the boat by not taking advantage of lower prices earlier in the year and that they are now attempting to cover their needs.

Several sources indicate that, as a result of the wage increase of nine per cent, they have temporarily withdrawn from sale until they study the price picture.

That there will be price increases is generally admitted in the wide goods market. It is pointed out that these prices have held well and that demand throughout the market has shown a decided upswing in past weeks. Buyers, in anticipation of higher prices, have shown a willingness to go further ahead in their buying than formerly.

Talk of a half-cent per yard rise in print cloth quotations has been heard in Worth Street, with commission house sources expressing the belief that such action would be taken shortly. The price of cotton was also holding attention of cotton goods men. Higher prices for this raw material will certainly bring on a higher price structure in gray goods, some assert.

Some quarters estimate that prices on cotton goods as a result of wage raises may advance about five per cent over current levels, particularly constructions that have been around the old O. P. A. levels.

J. P. STEVENS & CO., Inc.
fabrics for diversified uses

1410 BROADWAY

44 LEONARD STREET

EMPIRE STATE BUILDING

NEW YORK

Cotton Yarns Market

Notwithstanding the higher prices mills are quoting for carded and combed yarns, demand continues strong, and buyers are reported personally soliciting suppliers for goods for December and January deliveries.

A number of leading producers claim they are now sold up tight on combed yarns through the end of March, and have about half their carded yarn production already booked for that period.

Generally, mill representatives report that combed yarns are selling from 21½ to three cents a pound prior to the wage advances. Prices on the finer counts, which are in tight supply, have climbed as much as five cents a pound.

Veterans of the Philadelphia yarn trade are increasingly fearful of the long-term coverage being extended by some spinners and the high price bracket established by some sellers that is far above the general market price range, especially on tight combed yarns.

These sources point to mills that have booked business for six and seven months ahead and cite the difficulties that may be encountered, if the market strikes a slump, with customers saddled with contracts on high-priced yarns. Admitting that much of the pressure for distant coverage has come from the buyers, themselves, these spokesmen urge that this does not excuse the producer entirely. It is pointed out that some yarn spinners have flatly refused to sell beyond February or March, and have found users willing to take any poundage available at these delivery dates.

On the matter of prices, these traders say that in view of the booming demand for cotton yarn, they see no sign of any immediate halt in the steadily advancing price structure. New advances on carded yarns are expected any day now by numerous distributors.

It is cited that if foreign recipients of United States aid are allowed to expend dollar credits anywhere they choose, sale yarn exports will get a lift, especially in categories where this country is the sole remaining source of quality yarns. Some spinners are reported to be doubtful as to the effect on future production of the latest wage increases granted in the South, as they fear a further spread of the tendency toward absenteeism next month.

The Agriculture Department has estimated this year's cotton crop at 11,505,000 bales of 500 pounds gross weight. This estimate is a decrease of 3,000 bales from the 11,508,000 forecast a month ago.

**KNITTING
WEAVING
YARNS**

Sell Us Your Surplus Yarns

D. W. PEACH & Co.
GASTONIA, N. C.



**MODERN PRACTICE
MAXIMUM PRODUCTION**

When you choose new rings

When you replace, don't duplicate merely from habit. True, new rings replacing worn rings of the same type can boost production appreciably. But Modern Ring Practice may give greater production with a different type or size of ring, and that's where we come in.

WHITINSVILLE (MASS.)

SPINNING RING CO.

Makers of Spinning and  Twister Rings since 1873

You Can Quickly Check Yarn Tension WITH THE SAXL TENSION METER



SAVES
WASTE

IMPROVES
QUALITY

This vastly improved Tension Meter can be used wherever one needs to know the tension of moving yarn. Yarns can be tested in the spinning frame, winder, quiller, throwing frame, warper, slasher or any other textile machine. Because of its unique, compact design, the Meter can be used easily in tight places, such as the shed of the loom in order to measure tension of an individual yarn within the loom. By choosing proper weights and settings, the same tension between different loom beams can be adjusted thus improving weaving conditions.

In addition to these standard applications, the Meter can be used for testing shuttle tension.

A Saxl Tension Meter will be sent on approval for 10 days' trial upon request of any Southern mill superintendent or manager. No obligation.

Write

OLIVER D. LANDIS, Inc.

Southern Agent

718 QUEENS ROAD • CHARLOTTE 4, N. C.

SOUTHERN SOURCES OF SUPPLY for Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

AIR ENGINEERING CO., 115 W. Catherine St., Charlotte, N. C. Sou. Repr.: E. J. Sever, C. H. White.

AKRON BELTING CO., THE, Akron, O. Sou. Repr.: Oliver D. Landis, 718 Queens Rd., Charlotte 4, N. C.; Ralph Gossett, 111 Augusta St., Greenville, S. C.; William J. Moore, 1 Pendleton St., Greenville, S. C.

ALLEN CO., THE, 440 River Road, New Bedford, Mass. Sou. Repr.: L. E. Wooten, Fort Mill, S. C.

AMERICAN CYANAMID CO., Industrial Chemicals Div., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C. Hugh Puckett, Sou. District Mgr. Repr.: John D. Hunter, Paul F. Haddock, R. S. Meade, Q. M. Rhodes, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Butler, 1409 Garland Drive, Greensboro, N. C.; C. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; C. P. Kirchen, 10 South St., Mobile, Ala.; T. O. McDonald, 531 Masonic Temple Bldg., New Orleans, La.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN TEXTILE SHEET METAL WORKS, Dallas, N. C. L. W. Ingle, owner.

AMERICAN VISCOSE CO., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C. Harry L. Dalton, Mgr.

ARMOUR & CO., Armour Soap Works, 1355 West 31st St., Chicago 9, Ill. Dist. Divisional Offices: Armour & Co., P. O. Box 2664, Birmingham, Ala.; Armour & Co., 1816 Liberty Life Bldg., Charlotte, N. C.; Armour & Co., Jacksonville, Fla.; Armour & Co., Room 601, Chesapeake & Ohio Bldg., Huntington, W. Va.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley, Sou. Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Headquarters, 2130 N. Tryon St., Charlotte, N. C. W. Chester Cobb, Sou. Sales Mgr. Technical Service Men: Reid Tull, 118 W. Thomas St., Salisbury, N. C., Phone 1497-J; W. L. Mills, 803 Magnolia St., Greensboro, N. C., Phone 3-5282; Philip L. Lavoie, 19 Polk St., Sylacauga, Ala.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone County 7614; Harry Green, 1934 Dimon St., Columbus, Ga., Phone 3-9727. Warehouse and Sou. Mfg. Plant, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTH BROS., INC., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD DIVISION, Universal Winding Co., Providence, R. I. Sou. Offices, 618 Johnston Bldg., Charlotte, N. C.; Agent, Frederick Sails.

BAHNSON CO., THE, 1001 Marshall St., Winston-Salem, N. C.; 886 Drewery St., Atlanta, Ga.

BARBER-COLEMAN CO., Rockford, Ill. Sou. Office, 31 W. McRee Ave., Greenville, S. C. J. H. Spencer, Mgr.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARNES TEXTILE ASSOCIATES, INC., 10 High St., Boston, Mass. Sou. Office, 318 Montgomery Bldg., Spartanburg, S. C.

BECCO SALES CORP., Buffalo, N. Y. Sou. Mgr., D. S. Quern, P. O. Box 183, Charlotte, N. C. Sou. Repr.: J. D. Quern, 1930 Harris Road, Charlotte, N. C.; J. R. Hopkins, 403 Diggs Blvd., Warner Robbins, Ga.

BEST & CO., INC., EDWARD H., Boston, Mass. Sou. Rep.: W. C. Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; Ralph Gossett, 111 Augusta St., Greenville, S. C., Phone 150; William J. Moore, 1 Pendleton St., Greenville, S. C.

BLACKMAN-UHLER CO., 180 Ezell St., Spartanburg, S. C. P. C. Blackman, Jr., W. B. Uhler, Paul C. Thomas, Atlanta, Ga. John C. Turner, Box 916; New England, Frank T. Seery & Co., Inc., Melrose, Mass.

BORNE SCRYMSEY CO., Works and Offices, 632 S. Front St., Elizabeth, N. J. Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgr.: Russell C. Young; Repr.: John Ferguson, LaGrange, Ga.; Willard E. Smith, Charlotte, N. C.

BROOKLY FIBRE BROOM CO., Brooklyn, N. Y. Sou. Repr.: John Batson, Box 841, Greenville, S. C.

BROWN CO., THE DAVID, Lawrence, Mass. Sou. Repr.: Greenville, S. C., Ralph Gossett and Wm. J. Moore; Griffin, Ga., Belton C. Plowden; Dallas, Tex., Russell A. Singleton Co., Inc.; Gastonia, N. C., Gastonia Mill Supply Co.; Spartanburg, S. C., Montgomery & Crawford.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. Plants: Chattanooga-Knoxville-Nashville; Sales and Service: C. A. Schier, A. S. Burkart, W. A. Bente, W. J. Kelly, Jr., George S. McCarty, A. J. Kelly, D. H. Gunther, care of Burkart-Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, care of Burkart-Schier Chemical Co., Nashville, Tenn.; Lawrence Newman, care of Burkart-Schier Chemical Co., Knoxville, Tenn.; James A. Brittain, 3526 Cliff Road, Birmingham, Ala.; Nelson A. Fisher, 629 Hillside Ave., Glen Ellyn, Chicago, Ill.; Byrd Miller, Woodside Bldg., Greenville, S. C.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Rep.: J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA BELTING CO., 26 Augusta St., Greenville, S. C.

CAROLINA MACHINERY CO., Steel Creek Rd., P. O. Box 1922, Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C. Division of A. B. Carter, Inc., Gastonia, N. C. Sou. Rep.: R. D. Hughes Sales Co., 1812 S. Main St., Dallas, Tex.

CHANDLER MACHINERY CO., 120 Houston St., N.E., Atlanta, Ga.

CHARLOTTE CHEMICAL LABORATORIES, INC., Charlotte, N. C. Peter S. Gilchrist, Jr., Rep.

CHARLOTTE LEATHER BELTING CO., 314 E. 6th St., Charlotte, N. C. Sales Repr.: J. E. Beattie, P. O. Box 82, Greenville, S. C.; J. L. Harkey and P. L. Pindell, Charlotte Office.

CIBA CO., INC., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON INDUSTRIES, INC., Clinton, Iowa. R. C. Rau, S. E. Mgr., Clinton Sales Co., Inc., 325 Western Union Bldg., Atlanta 3, Ga., Tel. Cypress 1127;

Boyce L. Estes, 343 Mimosa Dr., Decatur, Ga. Sou. Repr.: Grady Gilbert, Box 342, Phone 3192, Concord, N. C.; Clinton Sales Co., Inc., Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C. Jack M. Gibson, 900 Woodside Bldg., Phone 3713, Greenville, S. C.; Boyce L. Estes, Box 132, LaGrange, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta, Ga.; Industrial Chemicals, Roanoke Rapids, N. C.

COLE MFG. CO., R. D., Newnan, Ga.

COMMERCIAL FACTORS CORP., 2 Park Ave., New York, N. Y.

CORN PRODUCTS SALES CO., 17 Battery Place, New York City. Corn Products Sales Co., Southeastern Bldg., Greensboro, N. C., W. Rouse Joyner, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C.; Corn Products Sales Co., Woodside Bldg., Greenville, S. C.; J. Allen Simpson, Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga.; J. Cantey Alexander, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala.; L. Hawley Kelly, Mgr. Stocks carried at convenient points.

CRABB & CO., WILLIAM, 303 Third Ave., Newark, N. J.

CROMPTON & KNOWLES LOOM WORKS, Worcester, Mass. Sou. Offices and Plant: 1505 Hutchison Ave., Charlotte, N. C.

CURTIS & MARBLE MACHINE CO., 72 Cambridge St., Worcester, Mass. Sou. Repr.: Greenville, S. C., 1060 Woodside Bldg., W. F. Woodward, Tel. 3338; Dallas, Tex., O. T. Daniels, care Textile Supply Co.; New York, N. Y., 200 Fifth Ave., F. C. Bryant.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep.: John E. Humphries, P. O. Box 834, Greenville, S. C.; John H. O'Neill, P. O. Box 720, Atlanta, Ga.; H. Reid Lockman, P. O. Box 515, Spartanburg, S. C.

DAYTON RUBBER CO., THE, Dayton, O. Textile Accessory Repr.: J. O. Cole, P. O. Box 846, Greenville, S. C.; William L. Morgan, P. O. Box 846, Greenville, S. C.; Thomas W. Melghan, 1364 Middlesex Ave., N.E., Atlanta, Ga.; T. A. Sizemore, 525 Grove St., Salisbury, N. C. V-Belt Repr.: O. E. Stevens, P. O. Box 1659, Charlotte, N. C.; R. D. Newton, 1503 Harbert Ave., Memphis, Tenn.; O. C. Williams, 240 Spring St., N.W., Atlanta, Ga.; K. C. Sparks, P. O. Box 2368, Birmingham, Ala.; W. E. Wayland, P. O. Box 241, Jacksonville Beach, Fla.; A. J. Zeller, 3800 Napoleon Ave., New Orleans, La.; J. M. Hubbard, Dist. Mgr., The Dayton Rubber Co., 240 Spring St., N.W., Atlanta, Ga. Textile Jobbers: Greenville Textile Supply Co., Greenville Belting Co., Greenville, S. C.; Textile Mill Supply Co., Charlotte, N. C.; Odell Mill Supply Co., Greensboro, N. C.; Young & Vann Supply Co., Birmingham, Ala.; Industrial Supply, Inc., LaGrange, Ga.; Textile Supply Co., Dallas, Tex.

DENISON MFG. CO., THE, Plant and Sales Offices, Asheville, N. C. Sou. Service Rep.: L. C. Denison, P. O. Box 4072, Asheville, N. C.

DIXON LUBRICATING SADDLE CO., Bristol, R. I.

DODENHOFF CO., INC., W. D., Greenville, S. C.

DOLGE CO., THE C. B., Westport, Conn. Sou. Repr.: William H. Harrison, 551 Wilton St., Marianna, Fla.; L. G. Strickland, R. F. D. 4, Durham, N. C.; George E. Bush, 800 Magnolia Ave., Charlotte, N. C.

DRAPER CORPORATION, Hopedale, Mass. Rhode Island Warp Stop Equipment Branch, Pawtucket, R. I. Sou. Offices and Warehouses, Spartanburg, S. C., Clare H. Draper, Jr.; Atlanta, Ga., 242 Forsyth St., S.W., W. M. Mitchell.

DRONSFIELD BROS., Oldham, England; Boston, Mass.

DUNNING & BOSCHERT PRESS CO., 328 W. Water St., Syracuse, N. Y.

DU PONT DE NEMOURS & CO., E. I., Organic Chemicals Dept., Main Office, Wilmington, Del. D. C. Newman, Mgr. Sou. District: Charlotte Office, 414 S. Church St., R. D. Sloan, Mgr.; J. D. Sandridge, Asst. Mgr. Repr.: E. P. Davidson, W. I. Pickens, M. D. Haney, Jr., H. H. Field, H. B. Constable, N. R. Vieira, W. R. Ivey, I. F. Chambers, B. S. Nicholson, J. T. Hastly, Jr.; J. A. Franklin, Augusta, Ga.; T. R. Johnson, Greenville, S. C.; J. T. McGregor, Greensboro, N. C.; J. A. Kidd, High Point, N. C.; John L. Dabbs, Jr., Hickory, N. C. Atlanta Office, 1208 Spring St., N. W., A. B. Owens, Mgr. Repr.: W. F. Crayton, Adam Fisher, Jr., J. H. Stradley, W. A. Howard, Gayle Rogers, J. L. Fesperman, Jr., John S. Gardner, C. H. Ashbury, Chattanooga, Tenn.; M. S. Morrison, Jr., Knoxville, Tenn.; A. W. Pickens, Columbus, Ga.; J. E. Dempsey, Orlando, Fla.; J. A. Verhage, Memphis, Tenn.

DURANT MFG. CO., 1957 N. Buffum St., Milwaukee 1, Wis.; 157 Orange St., Providence 3, R. I. Exclusive Sou. Repr.: F. W. Warrington Co., Charlotte, N. C.

EATON, PAUL B., 218 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant, 118½ W. Fourth St., Charlotte, N. C., George A. Field, Mgr.; Clifton E. Watson, Mgr. Sou. Sales, Arthur W. Harris, Harris Mfg. Co., Agt., P. O. Box 1982, Phone Main 2643, Atlanta, Ga.; R. D. Hughes Sales Co., 1812 Main St., Dallas 1, Tex.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C., and Allen Bldg., Greenville, S. C.; S. R. and V. G. Brookshire.

FELTERS CO., THE, 210-G South St., Boston, Mass.

FOSTER MACHINE CO., Westfield, Mass. Sou. Offices, 509 Johnston Bldg., Charlotte, N. C.

FRANKLIN PROCESS CO., Providence, R. I. Sou. Plants, Southern Franklin Process Co., Greenville, S. C.; Central Franklin Process Co., Chattanooga, Tenn.

GASTONIA COMBER NEEDLING CO., Gastonia, N. C.

GASTONIA MILL SUPPLY CO., Gastonia, N. C.

GASTONIA ROLLER, FLYER & SPINDLE CO., 1337 W. Second Ave., Gastonia, N. C.; C. E. Honeycutt.

GASTONIA SHEET METAL WORKS, Gastonia, N. C.

GATES RUBBER CO., Denver 17, Colo. Sales Offices and Warehouses at 605 W. Fifth St., Charlotte, N. C.; 1620 Comer Bldg., Birmingham, Ala.; 110 Milby St., Houston, Tex.; 1710 N. Market St., Dallas, Tex. Sales Office at 821-823 C. & S. National Bank Bldg., Atlanta, Ga.

GENERAL CHEMICAL CO., 40 Rector St., New York, N. Y. Sou. Sales and Technical Service Offices: 45 Edgewood Ave., S.E., Atlanta, Ga.; 2000 Race St., Baltimore 30, Md.; 818 Tuckasee Rd., P. O. Box 970, Charlotte 1, N. C.; 3909 Capitol Ave., Houston 3, Tex.

GENERAL COAL CO., 1217 Johnston Bldg., Charlotte 1, N. C. D. B. Smith, Sou. Sales Mgr.; F. B. Crusan, Asst. Sou. Sales Mgr. Repr.: H. O. Thompson, Asheville, N. C.; Hugh D. Brower, Atlanta, Ga.; H. C. Mills, Jr., Raleigh,

Mi-CLEANSER

EST. 1916

TEXTILE MILL SCRUBBING POWDER

CLEAN, WHITE, SAFE FLOORS

MI-CLEANSER IS AVAILABLE IN ABRASIVE OR SOLUBLE GRADES — ALL IDEAL FOR HAND AND MACHINE SCRUBBING. IMMEDIATE SHIPMENT

THE DENISON MANUFACTURING COMPANY
ASHEVILLE, N. C.

Yates D. Smith TEXTILE MACHINERY

Moving + Erecting + General Overhauling + Exporting

Serving the Textile Industry Since 1923

GASTONIA, N. C.

1055 W. Franklin Ave., Phone 1723

Charlab FUGITIVE TINTS

WATER TYPE—Does Not Overwet Stock
OIL TYPE—Conditions and Identifies;
Reduces Fly

Write or Phone

Charlotte Chemical Laboratories, Inc.
Charlotte, N. C.
Our 33rd Year



Leather Belting
AND
Check Straps

McKEE BELTING COMPANY

213 NORTH THIRD STREET, PHILADELPHIA, PENNSYLVANIA

Southern Representative

T. J. DIGBY, JR. + BOX 244 + PHONE 640 + GREER, S. C.

Manufacturers of
All Type Fluted Rolls
COMBERS — SPINNING — LAP MACHINES

DRAWING ROLLS A SPECIALTY



We also arrange present drawing frames for long synthetic staple up to and including three inch

Gossett Machine Works
West Franklin Avenue Gastonia, N. C.
Phone 213

BARNES SERVICE—Consulting Engineers to the Textile Industry for Over One-third Century

COTTON — RAYON — SILK — AND WOOL

Surveys — Reorganizations — New Plant Developments for Textile Bleaching, Dyeing, Printing and Finishing

- Building and Machinery Appraisals and Surveys (Reorganizations and New Developments)
- Mechanical and Operating Surveys—New Methods. (Reorganizations and New Developments)
- Order Scheduling and Planning
- Work Load Studies, Job Analysis and Job Evaluation, with Incentive Plans
- Standard Cost Installations
- Cost Control Methods

Labormeter—Burden-meter—Waste-meter

BARNES TEXTILE ASSOCIATES, Inc.

10 High Street, Boston 10, Mass.
318 Montgomery Bldg., Spartanburg, S. C.

The following is a typical letter written by a client, indicating the range and quality of service rendered by the Barnes engineers:

"We have employed Barnes Textile Associates, Inc., regularly since 1928. During this period we have consulted them on an infinite variety of problems having to do with the efficient operation of a textile plant.

"They have installed our cost systems, labormeters, carried out time and operating studies, worked with us in labor conferences, installed quality controls, advised us with regard to merchandising, assisted us in the purchase of machinery, laid out one completely modern plant which is in operation today, employing 2,300 employees, and have submitted plans for an additional plant and modern dye house.

"We consider them the outstanding textile engineers in the country today, both with regard to ability and integrity, and, during our nineteen years of close contact with this firm, their services have been invaluable."

N. C.; Guy H. Sowards, Greenville, S. C.; W. A. Counts, Res. Mgr., Bluefield, W. Va.; E. H. Chapman, Combustion Engineer, Charlotte, N. C.; J. E. Campbell, Combustion Engineer, Charlotte, N. C.

GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C. S. H. Williams, Mgr. **GOSSETT MACHINE WORKS**, W. Franklin Ave., Gastonia, N. C.

GREENSBORO LOOM REED CO., Greensboro, N. C. Phone 5678. Geo. A. McFeters, Mgr., Phone 2-5205; W. P. (Bill) Anderson, Phone 2-1824; Albert C. Bennett, Phone 2-1555.

GREENVILLE BELTING CO., Greenville, S. C.

GREENVILLE TEXTILE SUPPLY CO., Greenville, S. C.

GUARDIAN CHEMICAL CO., 708 Jefferson St., N.W., Atlanta, Ga.

GULF OIL CORP. OF PA., Pittsburgh, Pa. Div. Office, Atlanta, Ga. C. T. Timmons, Greenville, S. C.; W. G. Robertson, Jr., Spartanburg, S. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; G. W. Burkhalter, Greensboro, N. C.; S. E. Owen, Jr., Hendersonville, N. C.; R. L. Winchell, Raleigh, N. C. Div. Offices, Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, Ohio.

HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga.; J. C. Martin, Mgr.; Charlotte, N. C., Office, 1201 Johnston Bldg., Herman J. Jones, Mgr.; J. T. Miller, Service Rep.

HENDERSON FOUNDRY & MACHINE CO. (Div. of Southern States Equipment Co.), Hampton, Ga.

HENLEY PAPER CO. (formerly Parker Paper Co.), Headquarters and Main Warehouse, High Point, N. C.; Warehouses and Sales Divisions: Charlotte, N. C.; Asheville, N. C.; Gastonia, N. C.

HERSEY, HENRY H., 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

HETHERINGTON & SONS, INC., JOHN, 72 Lincoln St., Boston 11, Mass. Sou. Rep.: Thomas M. Brockman, Jr., 236 W. Airline Ave., Gastonia, N. C.

HUNT MACHINE WORKS, INC., 200 Academy St., Greenville, S. C.

HOUGHTON & CO., E. F., 363 Lehigh Ave., Philadelphia 33, Pa. Sou. Reps.: W. H. Brinkley, Gen. Sales Mgr., Sou. Div. 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2918. Sou. Reps.: L. L. Brooks, 23 Jones Ave., Greenville, S. C., Tel. 4856-J; J. W. Byrnes, 701 N. San Jacinto St., Houston 2, Tex., Tel. Jackson 2-7443; G. J. Reese, 315 St. Charles St., New Orleans, La.; C. L. Elgert, 300 Chesapeake Bank Bldg., 7 St. Paul St., Baltimore, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 398, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 8-B, Atlanta, Ga., Tel. Cherokee 7660; V. C. Shadden, P. O. Box 935, Chattanooga, Tenn.; C. G. Schultz, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2918; S. P. Schworer, P. O. Box 1507, or 302½ Otteray Drive, High Point, N. C., Tel. 3654; J. C. Mahaffey, Warp Size Specialist, 1301 W. Morehead St., Charlotte, N. C.; W. C. McMann, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2918; W. A. Isenbarg, Lubrication Engineer, 1301 W. Morehead St., Charlotte, N. C.

HOUGHTON WOOL CO., THE, 258 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Rep.: Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

HOWARD BROS. MFG. CO., 44-46 Vine St., Worcester, Mass. Sou. Offices and Plants, 244 Forsyth St., S.W., Atlanta, Ga.; Guy L. Melchor, Sou. Agent; J. Floyd Childs, 219-223 S. Linwood St., Gastonia, N. C.; Carl M. Moore, Agent; Southwestern Rep.: Russell A. Singleton Co., Inc., 718 Brown Bldg., Austin, Tex.

IDEAL MACHINE CO., Bensenville City, N. C.

INDUSTRIAL AIR CO., Needham, Mass.

INDUSTRIAL COOLING & MOISTENING CO., 1440-44 S. Tryon St., Charlotte 3, N. C., G. A. White.

INDUSTRIAL SUPPLY COMPANY, Clinton, S. C.

JACOBS MFG. CO., THE E. H., Danielson, Conn., and Charlotte, N. C. Sou. Executive, W. Irving Bullard, Pres., Charlotte, N. C.; A. F. Newton, Asst. to the President, Charlotte, N. C.; S. B. Henderson, P. O. Box 133, Greer, S. C.; Sou. Rep.: W. D. "Chip" Clark, 74-Montclair Dr., N.E., Atlanta, Ga.; Sou. Subsidiary, The E. H. Jacobs Mfg. Corp., Box 3098, Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hardware Co., Anderson, S. C.; Montgomery & Crawford, Inc., Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Greenville Textile Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Industrial Suppliers, LaGrange, Ga.; Southern Belting Co., Atlanta, Ga.; The Young & Vann Supply Co., Birmingham, Ala.

JENKINS METAL SHOPS, INC., Gastonia, N. C.

JOHNSON CHEMICAL CO., 831 Morets Ave., Phone 6450, Charlotte N. C., P. O. Box 1418, Stephen J. Hawes, Mgr.

KEARNY MFG. CO., INC., Kearny, N. J. (Hygrolit). Sou. Plant and Offices, Greenville, S. C. W. O. Slimbeck, Mgr. Sou. Reps.: Harold Mahon, Greensboro, N. C.; Wm. P. Russell, Atlanta, Ga.; Charles C. Withington, Greenville, S. C.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C. Sou. Warehouses: Greenville, S. C.; Charlotte, N. C. Sou. Reps.: C. C. Switzer, Greenville, S. C.; Luke Castile, 924 Monticello Terrace, Charlotte, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.

KELLER TOOL CO., Grand Haven, Mich. Marcus Bailey, 117 S. 21st St., Birmingham 3, Ala.; Oliver D. Landis, Inc., 718 Queens Rd., Charlotte 4, N. C.

LAMBETH ROPE CORP., New Bedford, Mass. Frank Burke, Phone 3-4287, Charlotte, N. C.; J. P. O'Leary, Phone 4082-M, Greenville, S. C.

LANDIS, OLIVER D., 718 Queens Road, Charlotte 4, N. C.

LAUREL SOAP MFG. CO., INC., 2807 E. Tioga St., Philadelphia, Pa. Sou. Reps.: A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.; W. R. Sargent, P. O. Box 1044, Greenville, S. C.

LAWRENCE LEATHER CO., A. C. Peabody, Mass. Henry W. Hersey, Selling Agent, 444 Norwood Place, Greenville, S. C.

LEON KIMMEL MACHINERY CO., P. O. Box 1318, New Spartanburg Highway, Greenville, S. C.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

LUBRIPLATE DIVISION, FISKE BROS. REFINING CO., 129 Lockwood St., Newark 5, N. J. Sou. Reps.: J. Fred Welch, 1317 Lafayette Ave., Charlotte, N. C.; James B. Tiernan, 1514 Vineville Ave., Macon, Ga.; Leo A. DeJean, 850 Gladstone Blvd., Shreveport 38, La. Distributors: Tidewater Supply Co., Inc., Norfolk, Va.; Asheville, N. C.; Columbia, S. C.; Knoxville, Tenn.; Richmond, Va.; Roanoke, Va.; Chears Bearing Co., Atlanta, Ga.; S. Donald Fortson Co., Augusta, Ga.; C. W. Farmer Co., Macon, Ga.; John D. Robinson Co., Savannah, Ga.; Georgia-Alabama Supply Co., Inc., West Point, Ga.; Noland

Co., Inc., Chattanooga, Tenn.; Lewis Supply Co., Memphis, Tenn.; Tafel Elec. & Supply Co., Nashville, Tenn.; Turner Supply Co., Mobile, Ala.; Jefferson Brick Supply Co., Birmingham, Ala.; R. J. Tricon Co., New Orleans, La.

LUTTRELL & CO., C. E., Greenville, S. C.

MANHATTAN RUBBER MFG. DIVISION OF RAYBROS-MANHATTAN, INC., THE, Passaic, N. J. Factory: North Charleston, S. C. Sou. Distributors: Alabama—Teague Hdw. Co., Montgomery; Anniston Hdw. Co., Anniston; Long-Lewis Hdw. Co., Birmingham; Gadsden Hdw. Co., Gadsden, Georgia—American Mch. Co., Atlanta; Biggs Supply Co., Macon, Kentucky—Craft-Pelle Co., Louisville, North Carolina—Charlotte Supply Co., Charlotte; Dillon Supply Co., Raleigh, Durham and Rocky Mount; Kester Mch. Co., Winston-Salem, High Point and Burlington, South Carolina—The Cameron & Barkley Co., Charleston; Carolina Supply Co., Greenville; Columbia Supply Co., Columbia; Montgomery & Crawford, Inc., Spartanburg; Sumter Mch. Co., Sumter, Tennessee—Chattanooga Belt & Sup. Co., Chattanooga; Summers Hdw. & Sup. Co., Johnson City, Brooks Equip. & Mfg. Co., Knoxville; Buford Bros. Inc., Nashville; Lewis Supply Co., Memphis, Virginia—Industrial Supply Corp., Richmond.

MARQUETTE METAL PRODUCTS CO., Cleveland, O. Sou. Rep.: Byrd Miller, Woodside Bldg., Greenville, S. C.

M-B PRODUCTS, 130-134 E. Larned St., Detroit 26, Mich. Wilson F. Hurley, P. O. Box 1443, Greenville, S. C., Virginia and South Carolina Reps.: J. W. Davis, P. O. Box 745, Columbus, Ga.; Georgia, Alabama, Mississippi and Louisiana Reps.: Charlotte Supply Co., Charlotte 1, N. C., North Carolina Reps.: R. D. Hughes Sales Co., 1812 Main St., Dallas 1, Tex., Oklahoma, Arkansas and Texas Rep.

McKEE BELTING CO., 213 N. Third St., Philadelphia, Pa. Sou. Rep.: T. J. Digby, Jr., P. O. Box 244, Greer, S. C.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga. N. C. Reps.: Walter S. Coleman, P. O. Box 722, Salisbury, N. C.; S. C. Reps.: James F. Coleman, P. O. Box 1351, Greenville, S. C.; Ga., Ala. and Tenn. Reps.: R. L. Holloway, P. O. Box 4334, Atlanta, Ga.

MERROW MACHINE CO., THE, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Rep.: (Including Canada) C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep.: Mellor, Bromley & Co., Ltd., Leicester, England.

MILLER, BYRD, Manufacturers' Agent, Woodside Bldg., Greenville, S. C.

MITCHAM & CO., N. Marietta St., P. O. Box 271, Gastonia, N. C.

MONSANTO CHEMICAL CO., St. Louis 4, Mo. G. Y. Frankie, Gen. Branch Mgr., Brown Marx Bldg., Birmingham 3, Ala.; J. B. Trotter, Johnston Bldg., Charlotte 2, N. C.

MORELAND CHEMICAL CO., INC., Spartanburg, S. C. Paul C. Thomas, Pres.-Treas.; J. W. Ivey, Vice-Pres. and Sales Mgr. Reps.: J. J. Blake, K. T. Moore, T. J. Boyd, Spartanburg, S. C.; W. E. Nash, Asheville, N. C.

MOUNT HOPE MACHINERY CO., 42-B Adams St., Taunton, Mass. Sou. Reps.: Slaughter Machinery Co., Charlotte 1, N. C.

NATIONAL ANILINE DIVISION, Allied Chemical & Dye Corp., Gen. Office, 40 Rector St., New York City. Julian T. Chase, Res. Mgr. Kenneth Mackenzie, Asst. to Res. Mgr., 281 W. First St., Charlotte, N. C. Salesmen: Wynn L. Barker, Harry L. Shinn, Geo. A. Artope and J. Reese Daniel, 201 W. First St., Charlotte, N. C.; J. H. Shuford, C. J. Dulin and J. A. Parker, Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rodgers and Chas. A. Spratt, 1202 James Bldg., Chattanooga 2, Tenn.; James I. White, American Savings Bank Bldg., Atlanta, Ga.; W. H. Jackson, County Club Apts., Columbus, Ga.; A. Jones, 508 Cotton Exchange Bldg., New Orleans, La.

NATIONAL PLASTICS, INC., Knoxville 2, Tenn.

NATIONAL RING TRAVELER CO., 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Sou. Agt. L. E. Taylor, Charlotte, N. C. Sou. Reps.: Frank S. Beacham, Honea Path, S. C.; H. B. Askew, P. O. Box 221, Griffin, Ga.; J. K. Sumner, P. O. Box 1607, Charlotte, N. C.

NEISLER MILLS CO., INC., 40 Worth St., New York, N. Y.

NEW DEPARTURE, DIVISION OF GENERAL MOTORS, Administrative Offices, Bristol, Conn.; headquarters of Southeastern territory: New Departure, 1154 National Press Bldg., Washington 4, D. C., A. A. Gloetzer, Mgr.; Sou. Reps.: Jones Y. Pharr, Jr., 2615 Marston Rd., Charlotte, N. C.

NEW ENGLAND BOBBIN & SHUTTLE CO., Nashua, N. H. Sou. Reps.: Charlotte Supply Co., Charlotte, N. C.; Mrs. W. G. Hamner, Box 26, Gastonia, N. C.; Arthur W. Harris, 443 Stonewall St., S.W., Atlanta, Ga.; Henry H. Hersey, Norwood Place, Greenville, S. C.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York City. Sou. Office and Warehouse, 224 W. First St., Charlotte, N. C. Phone 3-7181. Falls L. Thomson, Sou. Dist. Mgr. Sou. Sales Engineers: W. C. Taylor, P. O. Box 1161, Greensboro, N. C.; F. D. Jacobway, Box 28, Atlanta, Ga.; Claud M. Hendrix, P. O. Box 28, Atlanta, Ga.; F. W. Phillips, Box 782, Greenville, S. C.; James E. McNeely, Jr., 223 W. Fourth St., Gastonia, N. C.; James A. Sorrells, Jr., Box 1042, Nashville, Tenn.

NOBLE, ROY, New Bedford, Mass. Sou. Rep.: John B. Batson, P. O. Box 841, Greenville, S. C.

NOONE & CO., WM. E., 105 Washington St., Boston, Mass.

NORTH CAROLINA EQUIPMENT CO., Charlotte, N. C.; Raleigh, N. C.; Asheville, N. C.; Wilmington, N. C. Southern Equipment Sales Co., Columbia, S. C.

NORLANDER-YOUNG MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

NORTH, INC., FRANK G., 1378 Murphy Ave., S.W., P. O. Box 123, Station "A," Phone Raymond 2196-2136, Atlanta, Ga.; Marietta, Ga., P. O. Box 92, Phone 260, Frank G. North, Pres. and Treas.; Mark W. Mayes, V.-Pres. Reps.: E. E. Howell, Sales Engineer, Marietta, Ga.; Emile Leclair, Atlanta, Ga.; Raymond J. Payne, Carolinas, P. O. Box 6000, Charlotte 7, N. C., Phone 4-7331.

PARSBY SALES CO., 221 N. LaSalle St., Chicago 1, Ill. Sou. Reps.: C. H. Patrick, P. O. Box 300, Salisbury, N. C. Phone 1066, Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PARKS-CRAMER CO., Plants at Fitchburg, Mass., and Charlotte, N. C. Atlanta Office, Bona Allen Bldg.

PEACH & CO., D. W., Gastonia, N. C. D. W. Peach

PEASE & CO., 119½ E. Fifth St., Charlotte, N. C.

PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City; Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 805 Bona Allen Bldg., Atlanta, Ga.; J. H. Almand, W. J. Kirby, Atlanta Office; C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, 902 Montgomery Bldg., Spartanburg, S. C. Stocks carried at convenient points.

PIEDMONT PROCESSING CO., Belmont, N. C.

COOLING—VENTILATING

MOISTENING—HEATING

HUMIDIFYING INSTALLATIONS

ENGINEERING AND SERVICE

INDUSTRIAL Cooling & Moistening Co., Inc.

PHONE 7719 - - - - - CHARLOTTE, N. C.

RUBBER COVERED ROLLS
RUBBER-LINED PIPE and FITTINGS
RUBBER and ASBESTOS PRODUCTS

Better Service

FROM A SOUTHERN MILL



RAYBESTOS-MANHATTAN INC.

NORTH CHARLESTON PLANT
NORTH CHARLESTON, S. C.

The GASTONIA MILL SUPPLY CO.

Industrial, Textile, Electrical and
Plumbing Supplies & Equipment



GASTONIA, NORTH CAROLINA



CHARLOTTE, N. C.

MANUFACTURING CHEMISTS

TELEPHONE 6450

P. O. BOX 1418

Our SERVICE Backed by Years of Experience

—enables us to give you the BEST in the

MANUFACTURE OF

Steel Rolls
Flyer Pressers
Card Room Spindles
Lifting Rods

REPAIR OF

Steel Rolls
Roving Spindles
Spinning Spindles
Flyers

OVERHAULING OF

Fly Frames
Spinning Frames
Twisters
Spoolers

MOVING OF

All Kinds of Textile Machinery

Southern SPINDLE & FLYER CO., Inc.

WE MANUFACTURE, OVERHAUL AND REPAIR COTTON MILL MACHINERY

CHARLOTTE, N. C.

W. H. Monty, Pres. and Treas.



THE TERRELL CLEANING AND HANDLING SYSTEM

The improved TYPE K stripper, Automatic Bobbin Box Hoist and Conveyor Elevator—a modern, compact system for increasing the efficiency and lowering the cost of bobbin cleaning and handling.

The Terrell Co., Inc.

CHARLOTTE, N. C.

James F. Notman.....Needham, Mass.—N. E. States
E. W. S. Jasper, Inc.....Elizabeth, N. J.—Penn., N. J. and N. Y.
W. J. Westaway, Co., Ltd.....Hamilton and Montreal, Canada
Geo. Thomas & Co.....Manchester, England—European Agt.

PIONEER HEDDLE & REED CO., INC., 1374 Murphy Ave., S.W., P. O. Box 116, Station A, Telephone RAYMOND 2136, Atlanta, Ga. Frank G. North, Chairman of the Board; Mark W. Mayes, Pres. and Treas.; E. LeClair, Sales Mgr.; Glee B. Thompson, Atlanta, Ga. Raymond J. Payne, Carolina Reprs., P. O. Box 6000, Charlotte 7, N. C., Tel. 4-7331.

PITTSBURGH PLATE GLASS CO., Columbia Chemical Div., Grant Bldg., Pittsburgh, Pa. Dist. Sales Office, 615 Johnston Bldg., Charlotte, N. C., James R. Simpson, Dist. Sales Mgr.

PRICE SPINDLE & FLYER CO., Camp Wadsworth, Spartanburg, S. C.

PROCTOR & SCHWARTZ, INC., 7th Ave. and Tabor Rd., Philadelphia 20, Pa.

PROVIDENT LIFE & ACCIDENT INS. CO. (Group Accident and Health and Welfare Plans Div.), Chattanooga, Tenn. Southeastern Div. Office, 815 Commercial Bank Bldg., Gastonia, N. C.

RAILWAY SUPPLY & MFG. CO., THE, Main Office: 335-37 W. Fifth St., Cincinnati 1, O., Tel. Cherry 7820, Atlanta Office: Erwin Worstman, 888 Marietta St., Atlanta 1, Ga., Tel. Hemlock 1677; Charlotte Office: J. R. Wikie and John Vogler, P. O. Box 1038, Charlotte 1, N. C., Tel. 4-1628; Dallas Office: D. F. McKinnon, 3200 Main St., Dallas, Tex., Tel. Central 6415.

RAY CHEMICAL CO., Charlotte, N. C. Sou. Reprs.: Thomas J. Hall, Thomas H. McKenzie, Harry H. Sims, William W. Ray.

RHODES & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhodes & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305, C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1589, Greenville, S. C.; A. S. Jay, P. O. Box 587, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Koslyn Road, Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.

RICE DOBBY CHAIN CO., Millbury, Mass. Sou. Reprs.: John P. Batson, P. O. Box 1055, Greenville, S. C.; R. E. L. Holt, Jr., P. O. Box 1474, Greensboro, N. C.

ROBERT & CO. ASSOCIATES, INC., Atlanta, Ga.

ROHM & HAAS CO., 222 W. Washington Square, Philadelphia, Pa. Sou. Office: P. H. Del Plaine, Dist. Mgr., 1109 Independence Bldg., Charlotte, N. C., Phone 2-3291; A. K. Haynes, 1811 Meadowdale Ave., N.E., Atlanta, Ga., Phone Atwood 2619.

ROY & SON CO., B. S. Worcester, Mass. Sou. Office, Box 1045, Greenville, S. C.; Jack Roy, Ray, Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

SACO-LOWELL SHOPS, 60 Battery March St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., Walter W. Gayle, Sou. Agt.; F. Robbins Lowe and C. P. Clanton, Selling Agts., Atlanta, Ga.; Miles A. Comer and H. M. Walsh, Selling Agts.; Greenville, S. C., Charles S. Smart, Jr., Selling Agt.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C., A. T. Hanes, Jr., Mgr.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga. Reprs.: Vasser Woolley, John R. Seydel, E. A. Scott, A. Pate, Atlanta, Ga.; W. L. Whisnant, Concord, N. C. Northern and Export Rep.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.; A. Welling La Grone, 1105 Augusta St., Greenville, S. C.

SINCLAIR REFINING CO., Dist. Office, 573 W. Peachtree St., Atlanta, Ga., F. W. Schwettmann, Mgr., Lubricating Sales; P. W. Goddard, Mgr., Industrial Oil Sales; G. R. Dyer, Mgr., National Accounts Dept. State Offices: Atlanta, Ga., Birmingham, Ala., Jacksonville, Fla., Miami, Fla., Tampa, Fla.; Columbia, S. C., Charlotte, N. C., Nashville, Tenn., Jackson, Miss. Industrial Lubricating Engineers: W. P. Camp, P. O. Box 988, Columbia S. C.; J. O. Holt, P. O. Box 5516, Raleigh, N. C.; L. M. Kay, 332 Eighth St., N.E., Atlanta, Ga.; G. C. Kimbrough, P. O. Box 338, Nashville, Tenn.; W. H. Lipscomb, Apt. 6, 111 Broadus Ave., Greenville, S. C.; R. C. Martens, Rt. 1, Elmore, Ala.; R. O. Miller, 15 Miller Ave., Concord, N. C.; C. C. Nix, P. O. Box 2111, Birmingham, Ala.; R. L. Parrish, 211 Clisre Drive, Thomasville, Ga.; R. A. Smith, P. O. Box 1366, Knoxville, Tenn.; E. D. Watson, 218 Georgia Ave., Macon, Ga.

SIRRIE CO., J. E., Greenville, S. C.

SLAUGHTER MACHINERY CO., 513 S. Tryon St., Charlotte, N. C.

SLIP-NOT BELTING CORP., Kingsport, Tenn. Sou. Reprs.: E. S. Meservey, 134 McClean St., Decatur, Ga., Ga. and Ala. Rep.: O. H. Spencer, P. O. Box 1297, Gastonia, N. C.; N. C. Rep.: Jack Alexander, Box 1623, Phone 777, Charlotte, N. C.; part of N. C. and S. C. Rep.: T. E. Doane, 1421 W. Sullivan St., Kingsport, Tenn.; Tenn. and Va. Rep.: J. D. Cox, V-Pres., Greenville Hotel, Greenville, S. C., and Kingsport, Tenn.; O. L. ("Blackie") Carter, Box 2206, Phone 2043, Greenville, S. C.

SOCONY-VACUUM OIL CO., INC., Southeastern Div. Office, 1602 Baltimore Trust Bldg., Baltimore, Md. Warehouses: Union Storage Co., 224 W. 1st St., Charlotte, N. C.; Textile Warehouse Co., 511 Rhet St., Greenville, S. C.; South Atlantic Bonded Warehouse Co., Greensboro, N. C.; Columbia Warehouse & Truck Terminal, 903 Pulaski St., Columbia, S. C.; Tennessee District Office: Third National Bank Bldg., Nashville 3, Tenn.; Warehouses: Knoxville, Tenn., Chattanooga, Tenn., Nashville, Tenn., Columbia, Tenn., Memphis, Tenn., Johnson City, Tenn.

SOLVAY SALES CORP., 40 Rector St., New York City. Sou. Branches: 212 S. Tryon St., Charlotte, N. C.; H. O. Pierce, Mgr. Sou. Reprs.: Earl H. Walker, Guilford College, N. C.; H. W. Causey, 215 Middleton Drive, Charlotte, N. C.; M. W. Fletcher, 2973 Hardman Court, Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN BELTING CO., 236-S Forsyth St., S.W., Atlanta, Ga. Sou. Reprs.: A. F. Mauldin, 1376 Graham St., S.W., Atlanta, Ga.; E. G. Merritt, 549 Peachtree Battle Ave., Atlanta, Ga.; S. J. Merritt, 1426 Peachtree St., N.E., Atlanta, Ga.; J. H. Riley, 3013 Monroe St., Columbia, S. C.; S. C. Smith, 2526 Delwood Drive N.W., Atlanta, Ga.

SOUTHERN EQUIPMENT SALES CO. (N. C. Equipment Co.), Charlotte, N. C.

SOUTHERN LOOM REED MFG. CO., INC., Gaffney, S. C.

SOUTHERN RADIO CORP., W. Morehead St., Charlotte, N. C.

SOUTHERN SHUTTLES DIVISION, Steel Heddle Mfg. Co., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C.; C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C.; J. J. Kaufmann, Jr., V-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service, Atlanta Office and Plant, 268 McDonough Bldg., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C.; J. J. Kaufmann, Jr., Mgr.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

SOUTHERN STANDARD MILL SUPPLY CO., 512-514 W. Fourth St., Charlotte, N. C. Benson Davis, Mgr.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices: 2000 Rhodes-Haverly Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; Charlotte, N. C., L. A. Dillon, Asst. Southeastern Mgr. Sou. Reprs.: George A. Dean, H. A.

Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Greenville, S. C.; Walter P. Hope, Atlanta, Ga.; W. N. Dulaney, 12 Montevillo Lane, Birmingham, Ala.

STANLEY WORKS, THE, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa., Tel. Rittenhouse 9977; G. R. Douglas, 707 Columbian Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3813 General Taylor St., New Orleans 13, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 209 Hubbard St., San Antonio 2, Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C., Tel. 3-7015; J. A. Dickson, P. O. Box 390, 123 Bales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 7 Mallard St., Greenville, S. C., Tel. 3515-M.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C.; C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C.; J. J. Kaufmann, Jr., V-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service, Atlanta Office and Plant, 268 McDonough Bldg., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C.; J. J. Kaufmann, Jr., Mgr.

STEIN, HALL & CO., INC., 285 Madison Ave., New York City. Sou. Office, 224 W. Second St., Charlotte, N. C., Sou. Mgr., W. N. Kline, 2500 Roswell Ave., Charlotte, N. C.; Ala. and Ga. Reprs.: E. S. Estes, 1257 Durand Dr., N.W., Atlanta, Ga.; J. E. Hensley, 3011 Ave. "V," Birmingham, Ala., N. C. Rep.: W. S. Gilbert, Charlotte, N. C.; S. C. Rep.: S. S. Hockridge, Charlotte, N. C.

STERLING RING TRAVELER CO., 101 Lindsay St., Fall River, Mass. Sou. Reprs.: H. B. Cabanis, P. O. Box 188, Monroe, N. C.; M. H. Cranford, 135 Walnut St., Chester, S. C.; D. R. Ivester, Clarksville, Ga.

STEWART-WARNER CORP., Alemtie Div., 1897 Diversey Parkway, Chicago 14, Ill.

SULLIVAN & CO., 204 Citizens Bank Bldg., Norfolk, Va.

TENNANT CO., G. H., 2530 N. Second St., Minneapolis, Minn. Sou. Textile Mgr., Robert F. Guthrie, 2160 Colony Road, Charlotte, N. C. N. C. Rep.: A. S. Mabush, 216 Elmwood Drive, Greensboro, N. C.; S. C. Rep.: H. E. Lavett, 18 Alaska Ave., Greenville, S. C.; Ga. Rep.: John Thorsen, 818 Springdale Rd., N.E., Atlanta, Ga.

TERRELL CO., THE, Charlotte, N. C. E. A. Terrell, Pres. and Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principle cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; W. H. Goebel, Roanoke, Va.; F. M. Edwards, Goldsboro, N. C.; W. P. Warner and C. W. Meadors, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Charleston, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr., Atlanta, Ga.; J. G. Myers, Birmingham, Ala.; J. W. Buchanan, Munsey Bldg., Baltimore, Md.; G. W. Wood, Charlotte, N. C.; J. H. Murfee, Greensboro, N. C.; O. B. Maupin, Greensboro, N. C.; W. T. Allen, Greensboro, N. C.; C. T. Hardy, Durham, N. C.

TEXTILE APRON CO., East Point, Ga.

TEXTILE MILL SUPPLY CO., 1700-10 S. Mint St., Charlotte 1, N. C.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. Dist. Office: 1122 S. Blvd., Charlotte 3, N. C.; K. M. Slocum, Dist. Mgr., Charlotte 2-3063.

TODD-LONG PICKER APRON CO., Gastonia, N. C.

TODD-SMITH BANDING CO., INC., P. O. Box 116, Gastonia, N. C.

UNION CRAYON CO., Lowell, Mass.

UNION STOP FIRE CORP., 127 Ashland Place, Brooklyn, N. Y. Sou. Repr.: L. B. McWilliams, 2104 Wilmore Drive, Charlotte, N. C.

U. S. ROBBIN & SHUTTLE CO., Lawrence, Mass. Sou. Plants, Greenville S. C.; Johnson City, Tenn. Sou. Reprs.: E. Rowell Holt, 208 Johnston Bldg., Charlotte, N. C.; M. Ousley, P. O. Box 816, Greenville, S. C.; D. C. Ragan, High Point, N. C.; A. D. Roper, Johnson City, Tenn.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Reprs.: William W. Vaughan and Wm. H. Rose, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.; Torrence L. Maynard, P. O. Box 456, Belmont, N. C.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNIVERSAL WINDING CO., Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agts.: I. E. Wynne and R. M. Mauldin; 903 Whitehead Bldg., Atlanta, Ga., Agt. J. W. Stribling.

VALENTINE & CO., J. W., New York City. Sou. Rep.: T. Holt Haywood, 62 S. Main St., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231, W. Washington St., Greenville, S. C.; Robt. W. Bailey, Sou. Sales Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C., Phone 247. Also W. L. Hudson, Box 1313, Columbus, Ga.

VIRGINIA SMELTING CO., West Norfolk, Va.

WAK INDUSTRIES, Charlotte, N. C.

WALLERSTEIN CO., INC., 180 Madison Ave., New York 16, N. Y.

WARWICK CHEMICAL CO., W. Warwick, R. I. Sou. Branch Factory at Rock Hill, S. C. Sou. Reprs.: M. M. McCann, Box 825, Burlington, N. C.; Henry Papini, 806 Mills Ave., Greenville, S. C.; W. E. H. Searcy, III, Box 123, Griffin, Ga.

WATER TANK SERVICE CO., Commercial Bank Bldg., Charlotte, N. C.; Republic Bank Building, Dallas, Tex.

WATSON & DESMOND, 218½ W. Fourth St., Charlotte, N. C., Clifton E. Watson and S. F. V. Desmond, P. O. Box 1954, Charlotte, N. C. Sou. Reprs.: Walter F. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; John W. Littlefield, 810 Woodside Bldg., Greenville, S. C.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: W. F. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; John W. Littlefield, 810 Woodside Bldg., Greenville, S. C.

WHEELER REFLECTOR CO., INC., 275 Congress St., Boston 10, Mass. Sou. Reprs.: Ernest Hall, 901-A Sul Ross St., Houston, Tex.; Marshall Whitman, Bona Allen Bldg., Atlanta, Ga.; R. T. Hardy, 1012 Garfield Ave., Palmyra, N. J.

WHITEHEAD MACHINERY CO., TROY, P. O. Box 1245, Charlotte, N. C. Phone 3-9831.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whelan Bldg., Charlotte, N. C.; W. H. Porcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reprs.: M. J. Bentley and B. B. Peacock; Atlanta Office, 1317 Healey Bldg.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Repr.: J. H. Windle, Jr., No. 4 Beverly Ave., Greenville, S. C.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reprs.: C. R. Bruning, 302 N. Ridgeway Drive, Greensboro, N. C.; G. W. Searrell, R. No. 15, Knoxville, Tenn.

*Factoring
founded on service*

Meinhard, Greeff & Co. INC.

51 Madison Avenue, New York City

SOUTHERN OFFICE

E. F. Skinner, Johnston Building, Charlotte, N. C., Charlotte 2-5449

J. E. SIRRINE CO. GREENVILLE • SOUTH CAROLINA

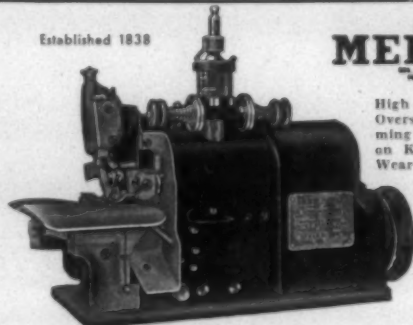


Engineers

TEXTILE MILLS • RAYON PLANTS • KNITTING MILLS • DYE HOUSES
BLEACHERIES • STEAM UTILIZATION • STEAM POWER PLANTS
WATER • WASTE DISPOSAL • APPRAISALS • PLANS • REPORTS

Established 1838

MERROW



High Speed Overedging,
Overseaming and Hem-
ming Machines for Use
on Knitted and Woven
Wear of All Kinds.

Quality Results
— High Produc-
tion — Conven-
ient Handling —
Minimum Time
Out for Adjust-
ment and Re-
pair — Low Up-
keep Costs.

For Best Results Use a Machine Suitably Arranged for Your Work.

The MERROW MACHINE COMPANY

2802 Laurel Street Distributors Hartford 6, Conn.
Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

Air Engineering Co.

115 WEST CATHERINE STREET
PHONES: 4-7239-4-7230

Charlotte, N. C.

AIR CONDITIONING
HEATING
HUMIDIFYING

Engineers and Contractors

PENICK & FORD, LTD.

CORN STARCHES, DEXTRINES, GUMS, CORN SUGARS & SYRUPS
NEW YORK, N. Y. — CEDAR RAPIDS, IOWA
SOUTHERN OFFICES: ATLANTA, GA. — SPARTANBURG, S. C.

John:
Those analyses
which the Penick &
Ford Textile Lab-
oratory in Atlanta
made for us certainly
helped solve our warp
sizing problems.
Jim

John Hetherington & Sons, Inc.

72 LINCOLN STREET BOSTON 11, MASS.

Southern Representative

THOMAS M. BROCKMAN, JR.

236 West Airline Ave., Gastonia, N. C.

Sole Agents for

JOHN HETHERINGTON & SONS, Ltd.

MANCHESTER, ENGLAND

NASMITH COMBERS

DRONSFIELD BROS., Ltd.

OLDHAM, ENGLAND

CARD GRINDING & ROLLER COVERING MACHINERY

We Stock

COMBER NEEDLES—ATLAS BRAND EMERY FILLETING—
ROLLER VARNISH—TRAVERSE AND DRUM GRINDERS—
CARD CHAINS—HANK INDICATORS—CLEARER CLOTH
—SPRINGS—SPROCKETS—TEXTILE MACHINERY REPAIR
PARTS



**TALLASSEE MILLS
Mounts
Its Spinning Frames**

UNISORB
without Bolts or Lag Screws

Saco-Lowell 1935 Model Long Draft Spinning Frames at Mount Vernon-Woodberry's Tallassee Mills, Tallassee, Alabama, are anchored the new, easy, economical way—on UNISORB.

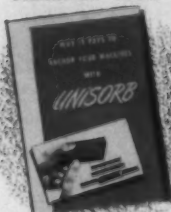
Spinning frames specifications: 4" gauge, 2 $\frac{3}{4}$ " ring, 264 spindles, 9" traverse.

Tallassee is but one of the many large mills who have contributed to the fast-growing trend to "Mount it on UNISORB" . . . no bolts, no screws, no more of the old, destructive floor drilling. Shortened installation time, installation costs cut. *Absorption of from 60% to 85% of transmitted vibration and noise.* By controlling vibration, UNISORB-mounting helps reduce machine down-time, tends

toward lowered plant and building expenses resultant from excessive vibration.

By reducing noise, UNISORB-mounting decreases worker fatigue, promotes better work and greater production.

UNISORB can be used on any type of flooring with practically every type of machinery and equipment.



Send for sample and complete specifications—ask for your free, illustrated copy of "Why it Pays to Anchor Your Machines with UNISORB."

LOOK FOR THE RED CENTER AND UNISORB BRAND MARK



THE FELTERS COMPANY

210-G SOUTH STREET, BOSTON 11, MASSACHUSETTS

Offices: New York, Philadelphia, Chicago, Detroit.

Sales Representative: San Francisco, St. Louis.

Southern Representative: Industrial Supply Co., Clinton, S. C.

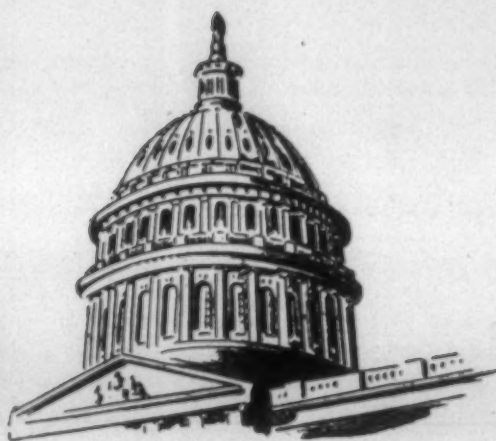
Southwest Representative: Textile Supply Co., Dallas, Texas

Mills: Johnson City, N. Y.; Millbury, Mass.; Jackson, Mich.

Foreign Representatives: ARGENTINA—PARAGUAY: Roberto Zander, 345-353 Juan Jaures, Buenos Aires; BRAZIL: Cia Industria E. Comercio, Glossop, Rua Visconde de Inhauma, 62, Caixa Postal, 265, Rio de Janeiro; RUA Florencio de Abreu 438/442, Caixa Postal, 1546, Sao Paulo; CHILE: W. L. Robinson, Casilla No. 4075, Santiago; COLOMBIA: C. E. Halaby & Co., Ltd., Airmail Box 650, Medellin; URUGUAY: Roberto Zander, Montevideo Ltda., Calle Uruguay, 1711, Montevideo; VENEZUELA: Herbert Zander & Co., P. O. Box 1291, Caracas; MEXICO: I. Slobotsky, Avenida Uruguay 55, Apartado 1192, Mexico, D. F.; EUROPE: Switzerland, Ernest Gersbach, Zurich; EASTERN MEDITERRANEAN AREA: The Arlind Corp., 509 Madison Avenue, New York 22, N.Y.

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]



While C. I. O. top leaders debate and sulk, the member unions are hurrying to sign compliance affidavits and get under the wire with N. L. R. B. All of them except those with outright Communists at top are signing up. Philip Murray refuses to admit he has Communist-led unions, but knows if he had pushed his "purge," he would have split C. I. O. wide open. He has sought to use resistance to the labor law to build up a solid front, but now that strategy has broken down, and unity is out at the window. New strains are developing, and C. I. O., with its broad left-wing flank exposed, is heading into its greatest crisis, and what may become a wide-open split between "reds" and antis.

Internally, C. I. O. unions are boiling and seething in a bitter battle to reduce the power of Communists and fellow travelers. Leftists are fighting to hold their grip. The attempted purge is the biggest undertaking of the unions in years. If right groups are defeated, and their unions cannot qualify before N. L. R. B., they will probably pull out and affiliate with other unions that are not boycotting N. L. R. B.

Peace spreads over the labor front for the first time since the war's end, and strikes are near an all-time low. But it's deceptive. Unions with expiring contracts next year are planning all-out drive for pay increases, with attacks on profits, and through them, on prices. Just now the unions cannot call strikes against the labor law without risking damage suits for contract violation. They don't want to face next year with empty treasuries.

Communists hope to get around the labor law ban on them by one of two expedients: (1) have the Communist Party expel them, and declare they are no longer Communists because expelled; and (2) create new innocuous sounding union titles, with salaries, which they can assume without having to sign compliance affidavits with N. L. R. B., but continue to exert their control and power.

C. I. O.'s Operation Dixie, to organize the unorganized in the South, is slowing down to a dead stop, and flop. Supporting unions, who put up a

million dollars on the promise of a sort of "Sherman March to the Sea" through the South in a year, are disgusted with the slow-moving, bungling and losing fight, and are ready to pull out. Drive will end early next year; quietly, with no tooting of trumpets or beating of tom-toms. Only Negroes in tobacco and similar plants will show for the million dollars.

Trouble with Southern workers, as C. I. O. sees it, is they are too independent. Real trouble is (1) C. I. O. sent in organizers who boasted back home, in Philadelphia and Passaic, they were anti-Southern and hated Southerners, and (2) C. I. O. leaders persuaded themselves Southerners wanted to be organized by them, and were just waiting for them to come and do it. Both moves were tragically wrong.

"I hate Southerners," said one C. I. O. organizer on a visit home. "I'm anti-Southern. They are ignorant; their living standards terrible; their schools rotten; their pay low; they run our organizers right out of town." He was asked: "If a group from Carolina or Mississippi came here and said that to you, about your people, would you favor taking them to the edge of town and telling them to move, and keep moving?" He did not answer.

One big trouble is that Communists flocked South under their own steam, and took over some locals as soon as they were organized by C. I. O. Murray, with his strongest unions dominated by Communists, could not object. He's known for months the Southern drive was grinding to a creaking, abysmal stop and crack-up.

Changes may come in the Taft-Hartley Law in the light of experience and administrative procedure, but changes in the near future are not visible. Congressional hoppers are full of bills for repeal, but not one has any prospect of enactment. Republicans and Southern Democrats, in a heavy majority in both houses, want to leave the law alone.

Most proponents of the labor law believe it should have at least a year's test before there is any tinkering, and maybe that's not long enough. N. L. R. B. will have ample opportunity to define

and prescribe its new policies. A year or more will allow the courts to act on some of the issues that are raised.

For election purposes, Northern Democrats want to keep alive the demands to amend the law. Next year these demands will get louder. They will draw a lot of union activity for some candidates. But Congress is not going to open the door for even minor changes, for some would try to throw it wide open, and both branches would be beset with possibly the greatest mass union demonstration in history.

Strikes have taken a nose-dive since the Taft-Hartley Law went into effect. In May, there were 1,256 strikes and 356,000 strikers; in June, 1,216 strikes and 85,000 strikers; in July, 1,221 strikes and 101,000 strikers; in August, 163 strikes and 89,000 strikers; in September, 134 strikes and 52,000 strikers; and in October, 112 strikes and 35,000 strikers.

N. L. R. B. has ruled in *Kinsman vs. A. F. of L. Seafarers Union* that a union cannot get on an election ballot unless it files anti-Communist affidavits and registers with the Secretary of Labor. The decision opens wide the door for unaffiliated unions on the board's "good" list to get on election petitions.

C. I. O. has decided to leave it to individual unions to decide whether to conform to the Taft-Hartley Law. Most of them will, but some can't.

Murray and C. I. O.'s top echelon will continue to beat the tom-tom of opposition, but it is merely a smoke screen to conceal Communists in control of some big unions who cannot sign compliance affidavits and keep out of jail.

Wage contracts in some of the country's largest industries will expire in April. Among them are those in the automobile industry, electrical equipment, clothing and a review of steel wages. Wage increases of about 15 cents an hour are expected to be demanded in making new contracts.

Far-reaching effect on labor relations will be exerted by decisions which N. L. R. B. will make in some of the cases pending before it. Several unions expect adverse decisions, and are laying the plan for extensive tests of provisions of the new law in the courts next year. Tests will revolve around constitutionality of the law, the ban on the closed shop, and requirement to register and file financial accountings on behalf of unions.

Risk faced by unions that continue to boycott N. L. R. B. will become greater as decisions are handed down. The danger of raids will increase, with independents seeking and winning elections. The law does not permit N. L. R. B. to hold another election in less than a year.

Statistics released by N. L. R. B. indicate employers are not trying to use the Taft-Hartley Law to break down unions, as claimed by labor. Of 407 unfair labor practice charges filed from Aug. 22 to Sept. 30, only 42 were from employers; 27 were filed by unions and 333 by individuals. Cases filed before Aug. 22 against employers will be handled under the Wagner Act without regard to whether the union has qualified under the new law.

General revision of the Internal Revenue code is very likely in the coming session of Congress. There's a question whether an early reduction in individual income taxes, as called for in the two bills vetoed in the last session, will be attempted. Revision of the code will seek to deal with inequities in corporate taxes and taxation of business.

There's general realization in Congress that financial help must be given to Europe this winter to prevent freezing and death. But it will impose tight controls on the spending of the billions, one of which will be that checks to inflation must be imposed prior to large-scale aid. Congress will try to impose safeguards to prevent the aid funds from simply filtering through war stricken countries into Russian hands.

Economic arguments for sweeping changes, or repeal, in the Wage-Hour Law are piled up with the McConnell House Labor Sub-committee. Southern industrialists have asked for repeal, with alternative proposals for amendment if Congress does not repeal. The sub-committee is talking revision, not repeal.

Sterling Ring Travelers

CONDITIONS

What are the particular conditions in your Spinning or Twisting Rooms?

If we knew, probably an entirely different Traveler would be recommended and better work result.

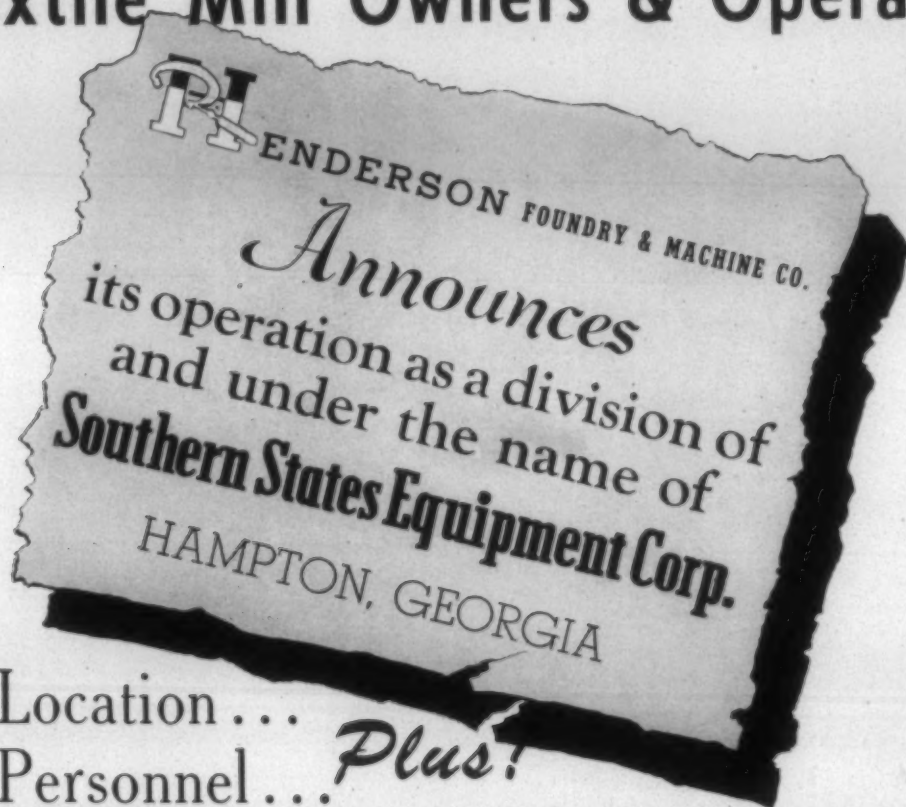
H. B. CABANISS
Box 188, Monroe, N. C.
M. H. CRANFORD
Chester, S. C.
D. R. IVESTER
Clarksville, Ga.

STERLING RING TRAVELER CO

FALL RIVER, MASS.

Significant **NEWS...**

For Textile Mill Owners & Operators



Same Location...
Same Personnel... *Plus!*

HERE is an announcement of utmost interest to textile mill owners and operators throughout the nation. Henderson Foundry and Machine Company, one of the largest manufacturers of textile machine parts in the South, will henceforth be operated under the name of Southern States Equipment Corporation.

There will be no change in our personnel.
There will be no change in our location. There
will be no change in the quality and careful
workmanship you have always associated with
Henderson products.

There will be this change. In addition to the "Know-how" of textile engineers, we can

now offer you the ability and "Know-how" of field-trained electro-mechanical engineers. In addition to providing you with textile machine parts manufactured to stock patterns, we are now able to offer solutions to your problems of electro-mechanical design and construction!

Significant, indeed, to textile mills is the combining of the Henderson name, its plant and facilities, with those of one of the major manufacturers of electrical transmission and distribution equipment. Significant because of the increased service it now enables us to render.

Call on us TODAY. Our engineers solicit your problems of a textile, mechanical, or electrical nature.

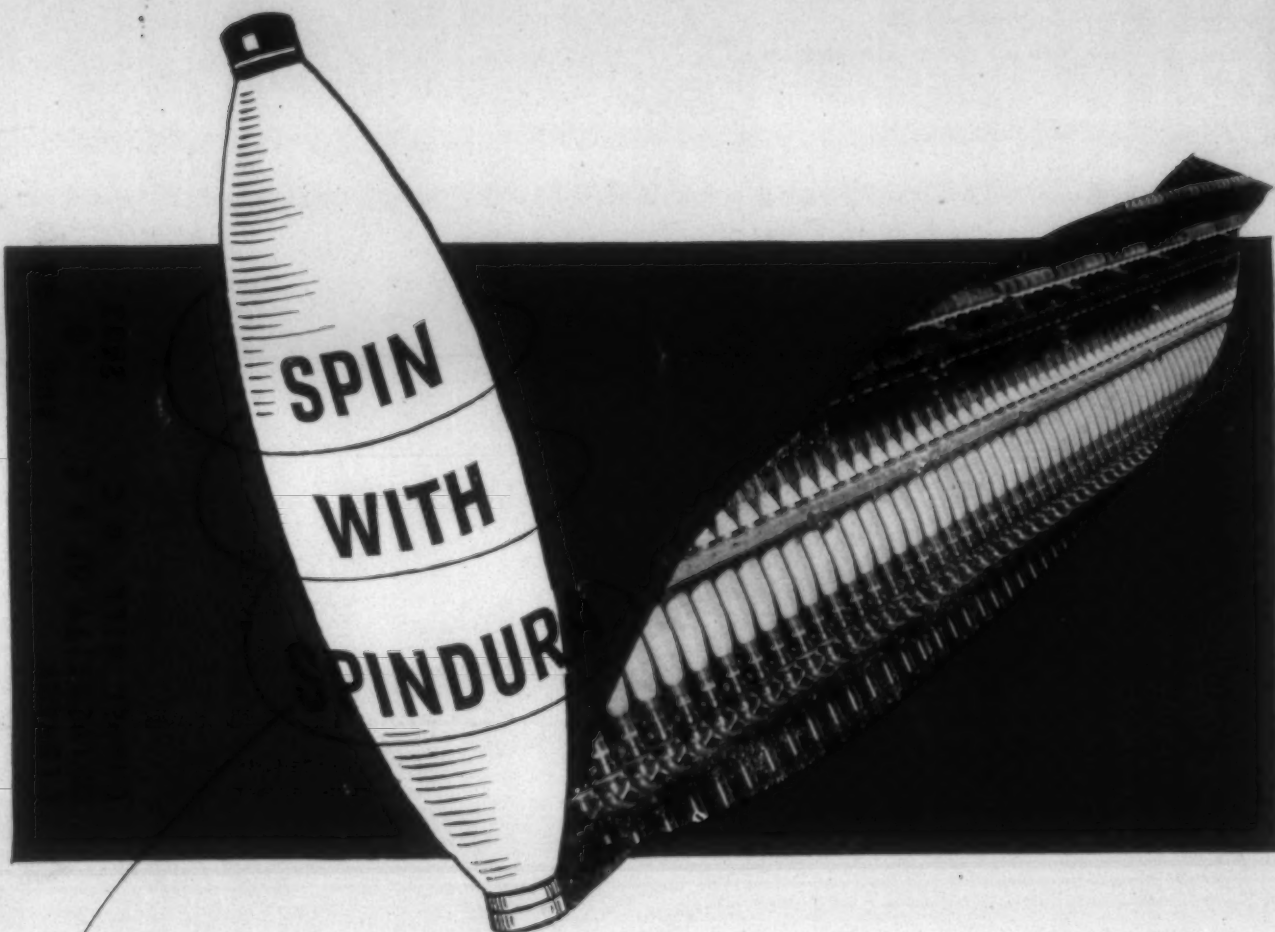


HENDERSON FOUNDRY & MACHINE CO.

(A Division of Southern States Equipment Corporation)

HAMPTON, GEORGIA

Largest Manufacturer of Cast-Tooth and Cut-Tooth Gears in the South



For Better Quality...Lower Costs

YOU CAN be sure of smoother, cleaner, more uniform yarn at lower cost when you lubricate spindles with *Texaco Spindura Oils*—especially made to assure efficient spindle operation.

Spindura Oils resist oxidation, thickening and fogging . . . do not form gummy deposits. You can run spindles at higher speeds and with heavier packages, and still have less vibration and "drag" . . . less hunting and lagging . . . fewer ends down . . . *lower power consumption*. Yarn stays cleaner.

Texaco Spindura Oils meet all spindle manufacturers' specifications for the lubrication of spinning, throwing, spooling and twisting machines.

Let a Texaco Lubrication Engineer assist you to improve quality, increase quantity, and reduce costs when you "Spin with Spindura." Just call the nearest of the more than 2500 Texaco distributing plants in the 48 States, or write:

The Texas Company, 135 East 42nd Street, New York 17, N. Y.



TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

TUNE IN . . . TEXACO STAR THEATRE presents the TONY MARTIN SHOW every Sunday night. • METROPOLITAN OPERA broadcasts every Saturday afternoon